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SOME NEWER ASPECTS OF THE ALCOHOL PROBLEM

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RECENT developments in our scientific knowledge of the effects of alcohol, and the increase in the mortality from alcoholism in this jurisdiction since the repeal of prohibition, make it desirable to review the subject again.

The effects of alcohol in general are referred to in an earlier paper, and need not be considered in detail here.[1] It is now generally accepted that alcohol is a narcotic and not a stimulant. Its apparent stimulant action arises because of its narcotic effect on the cerebral cortex, which serves as an inhibiting brake on the lower cerebral centers. The release of this brake, which is responsible for our conventionalism, our self-consciousness and our inferiority complexes, frees the emotional centers, which then come into control of the activities of the individual. Judgment is warped; muscular co-ordination and technic are lowered.

The term "narcotic" has a sinister connotation to the average mind. It suggests opium, cocaine, chloral and other habit-forming narcotics, but it includes the more benevolent barbiturates and similar agents, to which the world turns, perhaps too constantly, for relief.

Animal experimental evidence of the harmful effects of alcohol is quite limited. Pearl, who in 1914 was a biologist at the University of Maine, had a group of pedigreed chickens on which he studied the toxic effects of alcohol. The exposure was to an atmosphere of alcohol vapor for one hour a day, six days per week. At the end of fifteen months 41 per cent of the control animals were dead, owing largely to an epidemic of roup. None of the alcoholized animals had died. The experiment terminated in 1917, at which time all but one of the alcoholized animals survived. "Meantime," said Pearl, "all of their control brothers and sisters had long since died." The control animals, on the other hand, were more fertile than the alcoholic group.

A further study was made of the character of the offspring, thirteen desiderata being considered. Of these useful qualities the alcoholic offspring were superior in nine, the nonalcoholic in two, and in relation to two there were no differences. Chicken fanciers who were called upon to pick the superior animals among the offspring of both groups made selections without knowing the sources of the animals. Ninety per cent of their selections were from the offspring of alcoholic animals.

Pearl[2] concluded that the lowered fertility of the alcoholic group was due to a selective toxic action on feeble germ cells. Only strongly resistant germ cells produced fertile eggs.

Stockard[3] repeated these experiments with guinea pigs. There was a higher mortality in the young among the alcoholic offspring in the early generations and some defective animals in the third generation. In the fourth generation and thereafter, however, there was produced a superior race of guinea pigs, whose mortality was only 64 per cent of the controls. He agreed with Pearl that alcohol apparently had a toxic action upon feeble germ cells, leaving the stronger cells to produce offspring. Stockard concluded:

> If we should desire to apply these experimental results to the human alcoholic problem it might be claimed that such elimination of unfit individuals had benefited the races of Europe, since all of the dominant races have a definite alcoholic history.

Apart from the evidence of the toxic influence of alcohol on feeble germ cells, the only effects of ethyl alcohol on experimental animals are as follows: (1) acute intoxication, which may be carried to a fatal issue; (2) a lowering of the resistance to infection in rabbits fed concentrated alcohol by mouth (see below); and (3) an apparent activating influence on the toxic effect of certain poisons.

The dosage of carbon tetrachloride necessary to produce fatal results is markedly lowered in ani-

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mals which have been fed alcohol. Mallory[4] has found that alcohol lowers the dosage of phosphorus necessary for toxic action. Carbon tetrachloride is soluble in water only in traces. Phosphorus (yellow) is practically insoluble. Alcohol is a perfect solvent of carbon tetrachloride, and dissolves phosphorus in amounts adequate to produce toxic action. It is strongly suggested that the solvent action of alcohol is the factor responsible for the increased toxicity of both these agents.

On the other hand, mice may have as their only source of fluid from birth 35 per cent alcohol, and still develop equally with normal controls.[5]

In contrast to the limited effects created in experimental animals, alcohol has been accused of producing in man a great series of pathologic conditions, as follows:

1. Acute intoxication — which need not be discussed.
2. Delirium tremens.

There is doubt whether this symptom is of purely alcoholic causation. It does not arise commonly in relation to simple acute alcoholism. Prolonged usage with limitation of diet is the usual history. (See alcoholic neuritis, No. 4.) In the chronic alcoholic, delirium tremens may be precipitated by minor injuries or shocks.

3. Alcoholic epilepsy.

Alcoholism can precipitate epileptic attacks in old epileptics, and may possibly initiate attacks in individuals who never had attacks. In practically all such cases the subjects are chronic alcoholics. (See psychoses, No. 6.)

4. Alcoholic neuritis.

In this group, modern thought tends to accuse B_1 avitaminosis as the factor responsible for much if not all the symptom picture. The alcoholic who exhibits these symptoms usually eats little during his debauches or limits his diet to single foods, for example baked beans or spaghetti. The development of avitaminosis may arise from interference with absorption of vitamins in food. The condition may be due to the combined effects of alcohol and avitaminosis, but the cures of neuritis in patients under treatment with vitamin B_1 and given their usual daily intake of large amounts of whisky[6] do not support these theories.

5. Korsakoff's syndrome.

The neuritic elements in this condition apparently owe their origin to B_1 avitaminosis. For discussion of the psychoses see No. 6.

6. Psychoses.

The evidence signifies that an impaired mental mechanism tends to lead to alcoholic excess. Drunkenness may be merely the herald — the only obvious sign — of incipient mental disorder. Alcohol may be the intensifier, perhaps, but not the cause. Experience in England suggests that intolerance to small amounts of alcohol may be considered a fairly certain sign of impaired mental equilibrium. English inland and agricultural counties show a low incidence of alcoholism and a high insanity rate. In contrast, maritime, manufacturing and mining counties, above all others the most intemperate, have the lowest rates for insanity.

Pearson and Elderton[7] concluded that the family histories from the Galton Laboratory studies of adult alcoholism "seemed to indicate definitely that *extreme* alcoholism was only consequent on the pre-existing degeneracy of the stock; it was not in itself an antecedent to such defectiveness."

7. Degeneracy of offspring.

Pearson, with Elderton[8] of the Galton Laboratory, made a study of random samples of normal children and the offspring of alcoholics in Edinburgh and Manchester. The children of alcoholic parents showed a higher mortality, probably due to lack of care. There was a greater fertility, or at any rate a higher birth rate, in the families of alcoholics, and the surviving families were hardly smaller than those of the sober. Children of alcoholic parents were more healthy (perhaps more hardy) than those of abstainers. He concluded: "Parental alcoholism is not the source of mental defect in the offspring. . . . The relationship between parental alcoholism and filial intelligence is so slight that even its sign cannot be determined in the present material." These findings resulted in bitter attacks on the Galton Laboratory, and on Pearson, by the organized "temperance" groups. They quoted from MacNicholl,[9] Laitinen,[10] Bezzola[11] and Demme,[12] who had found apparently conclusive evidence in the opposite direction. I recommend highly the study of Pearson's reply,[13] which is a brilliant piece of medical polemics. He dissected the statistics of the above-mentioned writers and demonstrated that their studies were not made scientifically, that deductions were in many cases absurd on the basis of the material studied and that their work was valueless. Since Pearson's studies we have heard less of the influence of alcoholism in producing degeneracy.

8. Various central nervous lesions.

The standard textbooks in neurology are filled with accusations that alcohol is the cause of multiple lesions. Many of the imputations are pal-

pably absurd. For example, thickening and sclerosis of the skull, atrophy of the brain, decrease in the size of the corpus striatum and atrophy of ganglion cells can hardly be ascribed to alcoholism. To one who has seen a brilliant lawyer go through an amazing number of debauches during which the evidence of acute mental upset was complete, and then has observed his return to the courtroom with his cleverness unimpaired, the indictment of alcohol as a cause of definite organic changes in the brain is difficult to accept. Grinker[14] includes *plaques jaunes* as of alcoholic origin. These are of course traumatic in origin. Myelin sheath degeneration suggests B_1 avitaminosis. Optic neuritis is related to methyl alcohol rather than to ethyl alcohol. Proliferation of glia is usually a repair phenomenon which may be due to many causes. To assign its causation to alcohol without supporting data is unjustifiable. In a word, there is little evidence that alcohol per se is the cause of any organic lesions of the central nervous system. Its functional effects may be very great, but the production of permanent lesions is from the modern viewpoint not proved.

9. Subarachnoid hemorrhage.
10. Subdural hemorrhage (without contusion or laceration of the brain).
11. Hemorrhage into mammillary bodies.
12. Wernicke's polioencephalitis hemorrhagica superior.

This group (Nos. 9 to 12) of hemorrhagic conditions is often assigned to alcoholism. The evidence with reference to alcoholic association with subarachnoid hemorrhage is weak. Hemorrhages in this condition are commonly arterial, while the hemorrhages in the other conditions are of venous or capillary origin. Recent investigations indicate that in the latter three conditions we are dealing with C avitaminosis usually accompanying alcoholism and arising because of the limited diet. In subdural hemorrhage, which is by far the commonest of these conditions, the usual source of the bleeding is the rupture of a bridging or arachnoid vein, and falls usually precede the hemorrhages. Changes in the vessel wall, such as are met with in scurvy, predispose to rupture of vessels from minor traumatisms such as are frequently sustained without hemorrhage by the average individual.

13. Pellagra.

The causal relation of this disease to alcoholism was negatived by the finding of widespread pellagra in fanatical Volstead communities in the South. The limited diet of the chronic alcoholic may lead to B_2 (G) avitaminosis, as is true of the limited diet of poverty, notably the corn-meal diet in the South.

14. Atrophic gastritis and pernicious anemia.

Achlorhydria may arise in chronic alcoholics, possibly because of the insult to the gastric mucosa by the ingestion of concentrated alcohol. Atrophy of the gastric mucosa is not found in most cases of chronic alcoholism. Evidence that pernicious anemia occurs more commonly in alcoholics than in the rest of the population is lacking.

15. Increase in the efficiency of poison agents.

The solvent action of alcohol is probably accountable for the apparent increased toxicity. (See above.)

16. Laceration of the cardiac orifice with hemorrhage.
17. Pancreatic necrosis.

Laceration of the cardia may arise from forceful vomiting and may lead to serious or fatal hemorrhage.[15] This condition, fortunately, is not common. That violent vomiting may be a causative factor in relatively rare cases of pancreatic necrosis would appear from the studies of Myers and Keefer.[16] Readers should be warned, however, that pancreatic malacia, as well as gastric malacia, arises rapidly post mortem in alcoholic bodies, and postmortem gas-bacillus activities are common and early.

18. Lowered resistance to infection.

Abbott[17] demonstrated that prolonged alcoholic intoxication (50 per cent alcohol per os) caused a marked increase in the susceptibility of rabbits to certain types of infection, and others have confirmed his findings. With Bergey[18] he later demonstrated that in alcoholized rabbits there was a reduction of complement and specific hemolytic receptor. From personal observation I can support these conclusions with reference to increased susceptibility to infection in rabbits fed concentrated alcohol. This is in contrast to the observations of Pearl in chickens exposed to alcohol vapor.

It is recognized that acute lobar pneumonia occurs frequently in alcoholics. Whether exposure or other factors, including avitaminosis, contribute to this apparent susceptibility is not determined. The high mortality in pneumonia in alcoholics is well known, and routine treatment of pneumonia with alcohol apparently adds to the death rate.

19. Cirrhosis of the liver.
20. Chronic nephritis.
21. Arteriosclerosis.

For years these diseases (Nos. 19 to 21) were

looked upon as of alcoholic causation. Welch[19] said in 1903: "The experimental reproduction in animals of certain of the more characteristic diseases of human beings, attributable to the abuse of alcohol, such as cirrhosis of the liver, chronic Bright's disease and arteriosclerosis, has not been satisfactorily attained."

The work of Mallory[1] demonstrates that ethyl alcohol is not the cause of so-called alcoholic cirrhosis, either the pure type or the pigment type. The indications are that alcohol serves as a solvent carrier of the toxic agent, which proved to be copper in the pigment type.

The claim that chronic nephritis may be caused by alcohol has been practically dissipated by modern studies of nephritis. Indeed some writers believe that alcohol, while an intoxicant, is also a detoxicant, ridding the body of deleterious catabolic poisons (Hultgren[20]). There is no acceptable evidence that ethyl alcohol produces nephritis, all the supporting data being based upon inference and not on fact. However, MacNider,[21] while unable to produce any evidence of kidney injury in dogs with pure ethyl alcohol, did produce kidney damage with a *fresh* distillate of fermented corn meal and sugar. This may be significant in the period since the repeal of prohibition, as so-called whisky even no older than one month has been sold freely in the market.

It is perhaps unnecessary to deal with the evidence that has accumulated which indicates that alcohol is not only not the cause of arteriosclerosis but may even have preventive action on its development.[1]

22. Shortening of life expectation.

The studies of Pearl in this relation are well known and need little comment here. His studies of random samples of the population led to the conclusion that while the excessive drinker tended to have a shorter life, owing to fatal acute intoxication or accidental causes, the work "gave no evidence that the expectation of life from age 30 on is in any case impaired by the moderate consumption of alcoholic beverages." These findings have been criticized with apparent justice on the ground that the teetotaler was frequently a strenuous, active, driving sort of fellow — an intemperate enthusiast — while the moderate drinker was a person exhibiting self-control, and should have a higher expectation of life than the immoderate zealot.

23. Hemorrhagic gastritis.

For years so-called "temperance" literature was illustrated by pictures of the horrible hemorrhagic changes produced in the stomach by alcohol. These changes arise post mortem in the form of a malacia, which the gastric mucosa and the pancreas undergo frequently in alcoholics. It is not a vital picture.

24. Spontaneous combustion.

In the *Thousand and One Nights* it is recorded that jinns and afreets together with their victims sometimes suffered death by spontaneous combustion. That this form of death should be seriously accepted as a method of termination of life among alcoholics is on the face of it absurd. Charles Dickens, however, approved of it as a perfectly reasonable phenomenon. *Bleak House,* as with his other books, was published in installments. The description of the death of the alcoholic law writer, Krook, nicknamed the Lord Chancellor, from spontaneous combustion led to criticisms of the creditability of this chapter. In his preface to the completed work Dickens attempted to answer these criticisms. He asserted that about thirty cases of spontaneous combustion were on record. He cited the famous case of Countess Cornelia de Bandi Cesenati in 1731 and stated: "The appearances beyond rational doubt observed in that case are the appearances observed in Mr. Krook's case"; and again: "I shall not abandon the facts until there shall have been a considerable spontaneous combustion of the testimony on which human occurrences are usually received."

Oliver[22] has recently looked into the literature of this subject, which received much attention during the latter part of the eighteenth and the early part of the nineteenth century. Women were the usual subjects, fat, asthenic and over sixty years of age. Kopp[23] cited eighteen cases, three or four of which he had personally known about. He believed that the fire was started by an electric spark such as could be produced by rubbing fur in the cold. Dupont[24] asserted that some men could send forth light and sparks from their eyes, and concluded that an internal fire producing these phenomena ignited the body.

It is presumable that the common use of candles and open fires, the carelessness of the alcoholic with reference to lights and fires, the tendency of alcoholic bodies to undergo rapid postmortem changes, with the evolution of inflammable gas from gas-bacillus activities, and the imagination of observers are accountable for the reported cases. At any rate, cases of spontaneous combustion have not been recorded in the modern period.

With the exclusion of the organic lesions attributed to alcohol without adequate basis, and the elimination of the bogeys of hemorrhagic gas-

tritis and spontaneous combustion, it becomes evident that the conditions due to alcoholism in the human being correspond to those which can be produced in experimental animals; namely, acute intoxication, lowering of resistance to infection (concentrated alcohol by mouth) and reinforcement of the action of certain poisons by favoring solution.

Now that we are on a firm basis with reference to what alcohol directly does in the human body, we may consider more honestly the injury which it is proved to cause in humankind. It should be kept in mind that alcohol is responsible for establishing the conditions which favor the production of avitaminoses; it may precipitate the development of psychoses; it is the carrier of the agents producing cirrhosis; it alone or with avitaminosis is accountable for the vomiting which may cause lacerations of the cardia and pancreatic necrosis.

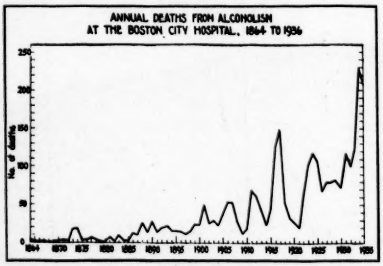

Chart 1.

The social effects upon the victims of alcoholism and their families we need not review. However, the tremendous local increase in alcoholism since the repeal of prohibition and the evidence that this increase is largely among the poor present a problem that must be met. This evidence appears in the accompanying charts.

Chart 1† gives the record of annual deaths from alcoholism at the Boston City Hospital, and illustrates the abnormally high death rate in 1934 and 1935, since the repeal of prohibition. (Compare Chart 4.)

Chart 2 shows the annual deaths from conditions related to alcoholism in the Southern Medical Examiner District of Suffolk County; it illustrates the increased number of deaths arising in my personal service as medical examiner.* In the period up to 1915 there was a quite standard low death rate from conditions related to alcohol — including pure alcoholism, alcoholic pneumonias, and injuries (other than automobile) directly resulting from alcoholism. The years 1916 and 1917 were the "silk shirt" period, when wages were high and employment in producing war supplies for the Allies and ourselves was at its height. We had entered the War in 1917. In 1918 and 1919 patriotic demands for retrenchment and temperance led to a marked lowering of the death rate. A man who became drunk publicly was ostracized, and a drinker could not hold a job. We became one of the most temperate people in the world. Then prohibition was established. The low death rate in 1920 was due to the nonavailability of supplies of liquor. The demand was met in 1921 and 1922 by home-brewing and the use of alcoholic extracts (Jamaica ginger, vanilla, bay rum, and so forth). By 1923 an efficient, if illegal, supply of bootleg alcoholic fluids was available, and this continued during the prohibition era. It was as easy to smuggle a bottle of whisky or concentrated ethyl alcohol as it was to smuggle a bottle of beer,

Chart 2.

and the profits were greater with concentrated liquors. Prohibition developed in the American people a taste for hard liquor and a disrespect for law.

With the repeal of prohibition there was an increase in local deaths in contrast to a lowering of the mortality from alcoholism in other parts of the country. From police reports and the liquor bottles found on alcoholic patients it became evi-

†Reprinted through the courtesy of Moore, M., and Gray, M. G.: The problem of alcoholism at the Boston City Hospital. New Eng. J. Med. 217:381-388, 1937.

*Because of illness in 1936 I saw fewer cases. The percentage of cases of alcoholism actually seen applied to the average number of cases seen per annum would indicate a mortality of 315 for 1936.

dent that this increase in mortality was due largely to the drinking of grain alcohol, though some of the makeshift whiskies sold since the repeal of prohibition played an important part. Massachusetts law permits the sale of 95 per cent alcohol (190 proof) over the counter in drugstores without a prescription. Properly diluted at the beginning of a debauch, this was frequently used in greater strength as drunkenness came on. The presence in the blood or brain of 0.5 per cent of alcohol ensures a fatal outcome.

Chart 3* gives the record of deaths from alcoholism in New York City and shows a drop in the

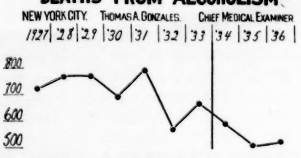

Chart 3.

mortality since prohibition. (The low death rate in 1932 was probably due to the widespread publicity given to the deaths resulting from drinking methyl [wood] alcohol, which occurred during 1930 and 1931.)

These charts indicate a marked *increase* in the mortality from alcoholism at the Boston City Hospital since the repeal of prohibition (Chart 1); a marked *increase* in the mortality from conditions related to alcoholism in the Southern Medical Examiner District of Suffolk County since the repeal of prohibition (Chart 2); and a *decrease* in the deaths from alcoholism in New York City since the repeal of prohibition (Chart 3). Ethyl alcohol can be purchased in New York State only on a physician's prescription.

The conclusions are obvious. The drugstore sale of ethyl alcohol over the counter in Massachusetts should be stopped.

A second series of charts illustrates the contrast between admissions for alcoholism to a free public clinic and the admissions to a pay clinic.

Chart 4 presents the Boston City Hospital's record of admissions for alcoholism. It illustrates the continued high curve since the repeal of prohibition, necessarily limited since repeal by the crowded condition of the institution.

Chart 5 shows admissions to the Washingtonian Home, an institution for inebriates with a curve contrasting with that of Chart 4. In 1928 a rule was put into effect that inmates should pay twenty dollars per week in advance. In 1929 and since that time the home has been closed one month each year. That month was August, the month in which there were fewest admissions. I have divided the eleven-month record of admissions by 11 and multiplied the quotient by 12, placing dots

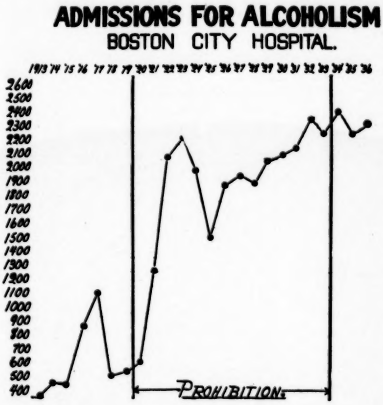

Chart 4.

above the curve of actual admissions. It will be noted that granting full allowance for the twelve-month period there is no essential change in the curve.

These charts demonstrate a *high* incidence of admissions for alcoholism to the Boston City Hospital since the repeal of prohibition (Chart 4), and a *low* incidence of admissions to the Washingtonian Home under requirements of payment for service in advance (Chart 5).

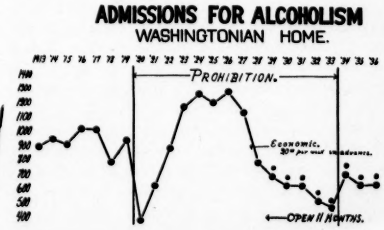

Chart 5.

These contrasting records indicate that the increase in alcoholic admissions to the Boston City Hospital is due to alcoholism among the poor. There is supporting evidence that cash advanced by the City of Boston under welfare provisions is used to buy the ethyl alcohol responsible for

*Reproduced through the courtesy of Dr. Thomas A. Gonzales, chief medical examiner, New York City.

much of this increase in drunkenness. Again the conclusions are obvious. That money advanced by the Welfare Department of the City of Boston should be the means of debauching and killing among the poor is monstrous.

It has been assumed by superior persons that the deaths in this series occurred only among derelicts — human outcasts, for whom nobody cared. Out of 310 deaths in 1937 the bodies of all but 18 were buried by relatives, their estates or their friends. The depression has been an important factor in undermining character, and alcohol as an escape mechanism has been too readily available for all groups, including often the former wage earner of a family.

ALCOHOLISM A PUBLIC HEALTH PROBLEM

In colonial and provincial times, and in the post-revolutionary period as well, the drinking of alcoholic beverages was common and proper. Cider of varying degrees of hardness was supplied to students at Harvard as a matter of course. Rum, for whose manufacture New England was famous, was used freely.

The so-called "temperance" movement began in the decade 1830-1840. Pews in the churches were not filled, and a new slogan was needed to awaken the apathetic public. Bradford has said: "The puritan cultivates a sense of sin as the artist cultivates a sense of beauty." And so there was born a new sin — not drunkenness, but drinking. The "temperance" movement became a total abstinence crusade.

It was in this period that De Tocqueville wrote (in *Democracy in America*): "If an American were condemned to confine his activity to his own affairs he would be robbed of one half of his existence; he would feel an immense void in the life which he is accustomed to lead and his wretchedness would be unbearable."

Alcohol the *spirit* by its narcotic action on the cortical brake leaves the drunkard dominated by his emotions. Alcohol the *word* seems to have the same effect on the cortical brain cells of the extreme wets and drys, who cease to be rational beings in discussing the subject, and are swayed solely by their emotions.

Irving Cobb in his series of *America Guyed Books* takes as the motto of Kansas: "Am I my brother's keeper? You bet your sweet life I am." And so every American whose emotions are stirred by the evil effects of alcohol, seems to believe him or herself divinely constituted, ipso facto, to be an expert on alcoholism. Carrie Nation has many sisters who only lack her daring.

They do things differently abroad. When England entered the World War she decided wisely to investigate all agencies which might interfere with the efficiency of the nation. She therefore appointed a scientific commission to study the subject of alcohol. That commission was made up of a pharmacologist (Cushney), a physiologist (Sherrington), a pathologist (Mott), a biological chemist (Dale), two alienists (Sullivan and McDougall) and a statistician (Greenwood), with Lord D'Abernon as chairman. The findings of this commission, practically applied, resulted in a marked increase in temperance in Great Britain.

Similarly in Denmark when the blockade during the war limited supplies, prohibition was tried for one month and abandoned. Dr. Hindhede then established a system of restriction which has practically eliminated delirium tremens as a problem in the hospitals of Copenhagen. Sweden actually voted for prohibition, but common sense prevented its being put into practice. Under the system of restriction instituted by Dr. Bratt, and bearing his name, Sweden has been converted from one of the most alcoholic nations in the world into a temperate people.

It is too much to hope that with our heterogeneous population we can equal in a few years the efficient results obtained in Great Britain and Scandinavia, with their homogeneous populations. It is my opinion, however, that until we approach the study of alcoholism from the standpoint of a public-health problem we shall fail in its solution. Sane legislation based upon scientific knowledge offers the greatest hope for successful control of chronic alcoholism, which is, in the last analysis, a disease.

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NEPHRITIC TOXEMIAS OF LATE PREGNANCY

A Clinical Study

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BOSTON

THE Carney Hospital, established seventy-five years ago, maintained a separate gynecological service during the first fifty-seven years of its existence. In 1919 an obstetrical service was established and combined with the gynecological. The combined service consists of twenty-eight gynecological and twenty-one obstetrical beds. By moving women who are out of bed and almost ready to go home to one of the small gynecological wards, we are able to care for twenty-five obstetrical patients when conditions so demand. This department has derived its clientele from three sources: the hospital's prenatal clinic, patients referred by physicians, largely those practicing near by the institution, and private patients. The largest group comes from the prenatal clinic.

From 1919 to 1936 inclusive there were 6909 deliveries. Of these there were 88 cases with nephritic toxemia of late pregnancy, an incidence of 1:78, or 1.3 per cent. All patients registering at the prenatal clinic are advised to report for examination every two weeks, and oftener if any complications arise. With such a small service only a limited number of patients can be treated, but the great advantage is that the service can be closely supervised. Our toxemias came from the three sources already mentioned, the more severe ones and those admitted in a moribund condition being referred to the hospital by physicians who usually had been called for the emergency and had not seen the patient before. Since the financial depression of 1929 many of the patients who formerly came to us have been referred to hospitals where no charge was made for ward beds, so that during the last seven years of our study the largest number of admissions came from our own prenatal clinic. During the seventeen years covered, there were only 6 cases of toxemia of the convulsive type or true eclampsia (4 antepartum cases and 2 postpartum), an incidence of 1:1151, or 0.1 per cent. (Stander's[1] collected cases give an incidence of 1:254, or 0.4 per cent.) A number of interns who have spent a year on the service have not seen a woman in convulsions. This has been due in large measure to prenatal care, which has become well standardized in all clinics. The foregoing is in contrast to the experience of one of us (L. E. P.) who, while serving as indoor house-surgeon at the New York Lying-In Hospital in 1914, saw patients with eclampsia admitted almost daily.

Eclampsia has been called the disease of theories. Despite the tremendous amount of research which has gone on and is still going on, the etiology remains obscure. The management of nephritic toxemias has undergone a marked change since the beginning of the present century. It was felt then by many accoucheurs that a woman suffering from severe toxemia and even having convulsions should be delivered at once. This belief was responsible for *accouchement forcé* with resulting deep lacerations of the cervix, sometimes rupture of the uterus; and septic phenomena frequently followed this forceful and brutal method of delivery. At this period a certain school of obstetricians favored immediate delivery by cesarean section — usually performed under full ether anesthesia — for the gravida admitted in convulsions and without labor; this anesthetic added a severe load on already badly damaged kidneys, and the operation superimposed marked shock on a very sick patient. During this same period of time chloroform, known to have extremely toxic effects on the liver, was given by inhalation to arrest the convulsions. The work of Stroganoff[2] and others in the medical or conservative treatment of eclampsia showed such improved results over the radical methods of immediate delivery by operative procedures that nowadays conservatism is resorted to in all well-conducted clinics, cesarean section playing but a small role in the management of this disorder.

The treatment, as applied now, is directed to the toxemia, and the pregnancy is disregarded for the time being, delivery being accomplished by one means or another only after the patient has improved from her toxic state or when the convulsions have subsided. Labor is usually induced by the simplest means at our command, namely the administration of castor oil, quinine in small doses and the rupture of the membranes. In the management of this malady cesarean section is reserved for primigravidas with long, rigid cervices who fail to respond to medical treatment, in order to de-

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liver them before the onset of convulsions, and for those who have a definite indication for the operation on the basis of pelvic contraction and disproportion. Statistics have shown that the highest maternal mortality occurs during convulsions, the cause of death being ascribed in large measure to cerebral hemorrhage. Admittedly there are still a small number of women who develop toxemia and even eclampsia despite the best prenatal care we are able to give them. However, most of the severe cases we encounter occur in women who have had no prenatal care. Our own experience has been that it is sometimes extremely difficult to make patients who live almost next door to the clinic report for their bimonthly examinations.

We considered patients as toxemic when one or more of the following findings were present: elevated blood pressure; heavy trace of albumin; urinary casts; pitting edema of extremities or face, or both, associated with subjective symptoms of persistent headache, blurring of vision, dizziness or epigastralgia.

Seasonal Incidence. The incidence of the cases according to season was as follows: spring, 23 per cent; summer, 25 per cent; autumn, 23 per cent; winter, 30 per cent. The largest number of cases occurred in October and December, each month having 15 per cent. The smallest incidence was in September, 2 per cent.

Age. Tabulating the patients according to ages in five-year groups, we found 11 per cent from twenty-one to twenty-five years, inclusive; 30 per cent from twenty-six to thirty; 31 per cent from thirty-one to thirty-five; 25 per cent from thirty-six to forty; and 3 per cent from forty-one to forty-five. Combining these into ten-year groups gave an incidence of 41 per cent for the third decade, as compared with 56 per cent for the fourth decade, making a 15 per cent increase in incidence in the older group.

Parity. Fifty per cent (44 patients) were primigravidas.

Duration of Pregnancy When Toxemia Was Noticed. The percentage of the toxemic patients increased markedly as term was approached: from 11 per cent at twenty-two to twenty-six weeks to 20 per cent at twenty-seven to thirty-one weeks, and 68 per cent at thirty-two to thirty-six weeks.

Prenatal Care. These cases were analyzed as to the type of prenatal care received, and divided into three groups, as follows: adequate care, inadequate care, no prenatal care. The patients who registered before the fifth month of pregnancy and who were regular in attendance were considered as having had adequate care. Those who registered late in pregnancy or those who did not make regular prenatal visits were placed in the inadequate-care group. Those who had seen no physician, who were beyond the fifth month of pregnancy and who were toxemic or moribund when admitted were considered as having had no prenatal care.

Analysis of the cases showed that 36 per cent had adequate care, 55 per cent inadequate care and 9 per cent no care. Almost two thirds (64 per cent) of these toxemic patients had either inadequate or no prenatal care. This is a rather high percentage in this day and age, when we are constantly preaching about prenatal care to medical students, physicians and the laity. But we must take into consideration the fact that these cases go back to 1919, when prenatal care was not expounded to the laity so strenuously as it is today.

Onset of Labor. Labor began spontaneously in less than one third (30 per cent) of the patients. It was induced medically (castor oil and quinine) in 1 per cent, and by the artificial rupture of the membranes either alone or with an additional procedure, such as the use of a Voorhees bag, bougie or gauze pack, in 42 per cent. The low transverse cervical cesarean section was employed in 20 per cent, Hirst cesarean in 1 per cent (1 case), and vaginal cesarean section in 6 per cent.

In no case was a cesarean section performed during the active stage of eclampsia or during convulsions.

In evaluating these statistics we must take into consideration the fact that many of these abdominal cesarean sections and all the vaginal ones were done at a period when the rapid emptying of the uterus as a means of treatment was still in vogue with some obstetricians.

Method of Delivery. A little over one third (37 per cent) of the patients delivered spontaneously. The remaining women were delivered as follows: by forceps, 13 per cent; by internal podalic version, 14 per cent; by breech extraction, 6 per cent; by low transverse cervical cesarean section, 20 per cent; by Hirst cesarean, 1 per cent; by vaginal cesarean, 6 per cent; and by postmortem cesarean, 4 per cent.

Fifty per cent of the abdominal cesarean sections were performed under local anesthesia.

Infant Mortality. A little more than one half (55 per cent) of the babies were born alive; 10 per cent died of prematurity within three days; 1 per cent (1 case) died of hemorrhagic disease of the newborn.

Slightly under one half of the stillborn were macerated fetuses. Included in the stillborn were 3 postmortem cesarean babies, at twenty-two, thirty-three and thirty-six weeks of pregnancy, respectively. The chance for a living baby in a toxemic

patient, as shown by this group of cases, is a little better than 1:2.

Maternal Mortality. Five deaths occurred, an uncorrected maternal mortality of 6 per cent. All these women had had inadequate prenatal care: 4 died undelivered, and 2 were admitted in moribund condition and died within twenty-four hours.

Case 1. A primigravida, aged 35, was 7½ months pregnant. She had a blood pressure of 250/120. The urine examination revealed 3+ albumin, with hyaline and granular casts and blood cells in the sediment. She had had four antepartum convulsions. Her prenatal care was inadequate. The diagnosis was eclampsia, acute nephritis and hypertension. She died undelivered and a postmortem cesarean section was performed. The fetus was stillborn.

Case 2. A primigravida, aged 40, was at term. She had had inadequate prenatal care. Her blood pressure was 200/120. Examination of the urine revealed 3+ albumin. The diagnosis was eclampsia. A Hirst cesarean section was performed, a stillborn fetus being obtained.

Case 3. A quintigravida, aged 40, was 5 months pregnant; on admission she had a blood pressure of 266/104 and marked edema of the lower extremities. Examination of the urine revealed 2+ albumin, and hyaline and granular casts in the sediment. Her prenatal care was inadequate. In addition to toxemia of pregnancy she had hypertension, renal and pulmonary tuberculosis and aortic regurgitation. She died undelivered, and a macerated fetus was obtained when a postmortem cesarean section was performed.

Case 4. An octogravida, aged 38, was 6 months pregnant. She had a blood pressure on admission of 250/130. Examination of the urine revealed 3+ albumin, and hyaline and granular casts. Her prenatal care was inadequate. She had had a cerebral hemorrhage, and when admitted to the hospital was in a moribund condition and died within 24 hours.

Case 5. A primigravida, aged 36, was 8 months pregnant. She was admitted in a moribund condition. Her blood pressure was 182/120. Urine examination revealed 2+ albumin and hyaline casts. She had had inadequate prenatal care, and died within 24 hours. A postmortem cesarean section was performed, and a stillborn fetus was obtained.

Previous History of Toxemia. Fifteen patients, or 17 per cent of our series, had had toxemia of pregnancy previously, 2 of them twice. When we remove from this group the primigravidas, who constituted 50 per cent of the entire number, and who ipso facto could not have had a previous toxemia, the percentage rises to 34.

In these multigravidas we were able to determine the condition of the kidneys in the intervening period between the previous toxemic condition and the present illness, and found that chronic nephritis was the underlying cause of these repeated toxemias. Chronic nephritis with hypertension accounted for 9 per cent of the entire group, or 18 per cent of the multigravidas, and chronic nephritis alone for 8 and 16 per cent, respectively.

Accidents of Labor. There were 2 cases in which accidents of labor occurred.

Case 6. A primigravida, aged 24, was 6 months pregnant. She had had inadequate prenatal care. On admission examination revealed a premature separation of the placenta associated with hydramnios. Her blood pressure was 172/108. She had 3+ albumin in her urine. The membranes were ruptured artificially and she was delivered normally of a stillborn fetus. She had an uneventful recovery.

Case 7. A quintigravida, aged 39, was at term. She had had adequate prenatal care. On admission a diagnosis of marginal placenta previa was made. Her blood pressure was 185/100. Urine examination showed a trace of albumin. She was delivered by version and extraction. The baby died in 2 days and the mother made an uneventful recovery.

Treatment. We did not adhere rigidly to any one regime. Our treatment consisted of a combination of sedation, elimination and diet. Sedation was obtained by the moderate use of morphine, bromides, chloral hydrate and the barbiturates.

For elimination, colonic irrigations and gastric lavage were used. In addition magnesium sulfate was given by mouth, or 20 cc. of a 10 per cent solution intravenously, or 20 cc. of a 25 per cent solution intramuscularly every hour for five doses, and repeated as necessary. We also used hypertonic glucose solution intravenously. A low-protein and low-salt diet was also utilized.

If the patient was in labor she was delivered as soon as possible, normally, by forceps or by version and extraction. Spontaneous delivery was preferred if she was having active labor and was progressing rapidly, but we did not allow a long second stage of labor, terminating such cases by forceps or version and extraction.

In multiparas, if the patient was not in labor it was induced by the artificial rupture of the membranes, either alone or in combination with the insertion of a Voorhees bag, a bougie or a gauze pack. The primigravidas who did not improve under the medical regime, and in whom we feared the onset of convulsions, the elderly women who had long rigid cervices and the younger group who had some pelvic contraction or disproportion between the pelvis and the fetal head, were delivered by the low transverse cervical cesarean section, preferably under 1 per cent novocaine local anesthesia.

CONCLUSIONS

Careful supervision of pregnant women (prenatal care) has greatly improved results in nephritic toxemia of pregnancy.

An occasional patient develops eclampsia even

though she has had what is considered adequate prenatal care.

Since the early part of this century the management of the toxemias of pregnancy has changed from radical to conservative.

The treatment should be directed to the toxemia, and the pregnancy should be disregarded for the time being.

Delivery through the pelvis by the simplest means possible has shown far better results than were obtained by radical abdominal delivery.

Accouchement forcé is a relic of the past, and should have no place in the management of the toxemic patient.

Cesarean section is but rarely indicated, and should be employed only in the delivery of a primigravida with a long rigid cervix who fails to improve under medical regime, in order to terminate pregnancy before the onset of convulsions. The operation has to be considered in the presence of a contracted or malformed pelvis.

Vaginal cesarean section, devised for the immediate delivery of a toxic patient, has been almost entirely discarded.

In seventeen years at the Carney Hospital there were 6909 deliveries with 88 cases of late nephritic toxemia of pregnancy, an incidence of 1:78, or 1.3 per cent.

Six women in the series had convulsions or eclampsia (4 antepartum and 2 postpartum), an incidence of 1:1151, or 0.1 per cent.

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CASE RECORDS OF THE MASSACHUSETTS GENERAL HOSPITAL

ANTEMORTEM AND POSTMORTEM RECORDS AS USED IN WEEKLY CLINICOPATHOLOGICAL EXERCISES

FOUNDED BY RICHARD C. CABOT, M.D.

TRACY B. MALLORY, M.D., *Editor*

CASE 24201

PRESENTATION OF CASE

First admission: A twenty-nine-year-old, white, American woman entered the hospital with the complaint of skin eruptions of two weeks' duration.

About ten months before entry she began to have intermittent cough productive of moderate amounts of white sputum. She had lost about 10 lb. in weight during the two months previous to that time, and she noticed that she was gradually beginning to tire easily. About six months before entry she began to have pain in both knees and in her left hip. They felt hot and slightly tender and appeared to be swollen. Application of local heat gave complete relief after a few days. Six weeks before entry the joint pains returned with greater severity, and she also had soreness in the calves of both legs. The pain was not sufficiently severe to interfere with her work. Two weeks before entry small, reddish-purple, non-tender, maculopapular eruptions appeared on the exterior surfaces of her arms and thighs and spread to her face. Four days later ecchymotic areas about the size of a fifty-cent piece appeared on her arms and on the flexor surfaces of her legs, which gradually increased in size. One week before entry she had a temperature of 100°F., without chills, and for the two days before entry she had repeated nosebleeds. She had no hematemesis, hemoptysis, hematuria or melena; but her last menstrual flow three weeks before entry had been very profuse, with clots. During the two weeks before entry she lost about 5 lb. in weight and had had moderate malaise.

About a month after she was married, which was twelve years before entry, she had had attacks of severe dysuria and frequency which subsided after a period of treatment with douches. About one and a half years later while at a sanatorium for a "nervous breakdown" it was discovered that she had syphilis. For the year after that she had weekly arm and hip injections; and for the four months before entry she had again been given weekly hip injections. She stated that she had never been in very good health and that she had always had vague spells of difficulty in breathing. She had no other cardiorespiratory symptoms or any history of previous blood dyscrasias or skin diseases. Her family history was essentially negative.

Physical examination revealed a well-developed and nourished woman in no apparent discomfort. There was slight pallor of the mucous membranes. On the face there were many papular urticaria-like lesions with denuded surfaces, and a few similar lesions on the chest. On the left wrist and lower legs there were several ecchymotic areas, and there were petechiae on the lower legs, arms and buccal mucosa. There was a systolic apical heart murmur, and the blood pressure was 120 systolic, 86 diastolic. The abdominal and pelvic examinations were negative.

The temperature was 99°F., the pulse 85. The respirations were 20.

The urine had a specific gravity of 1.016 and was negative. The blood showed a red-cell count of 3,260,000 with 60 per cent hemoglobin, and a white-cell count of 4000 with 48 per cent polymorphonuclears, 43 per cent lymphocytes, 8 per cent monocytes and 1 per cent eosinophils. The platelets were greatly diminished. There were 1.2 per cent reticulocytes. The guaiac test on the stool was negative. The blood Hinton test was twice positive, and the blood Wassermann negative. The van den Bergh on the blood serum was normal, indirect. The bleeding time was 2 minutes, the clotting time 12 minutes. A lumbar puncture was entirely negative. The spinal-fluid Wassermann was negative.

An electrocardiogram showed a tendency to slight right-axis deviation, upright T_1, low T_2, inverted T_3 and T_4 and short Q_4. An x-ray of the chest showed no evidence of disease in the heart or lungs.

A tourniquet test done on the third day was positive. On the eleventh day the bleeding time from the ear was 15½ minutes and from the finger 16½ minutes. The clotting time was about 13 minutes and there was no clot retraction after sixteen hours. A sternal biopsy done on the fourteenth day showed hyperplasia of the marrow. There was increased cellularity, particularly evident in the granulocytic series. Megakaryocytes were also increased, the older forms being predominant. After the biopsy the patient vomited about an ounce of material which appeared to be changed blood. She had begun her menstrual period on the eighth hospital day and continued to flow quite profusely for two weeks. On the fifteenth day the red-cell count was 2,460,000 with 55 per cent hemoglobin. On that day her temperature rose to 101.5°F. Two days later she was given a transfusion of 550 cc. of blood, and following that her temperature rose to

103°F. It gradually fell to normal, but after another transfusion three days later, on the twenty-first day, she had chills and her temperature rose to 103.4°F. Her red-cell count that day was 1,850,000 with 40 per cent hemoglobin, and the guaiac test on the stool was 4+. The stool was tarry in appearance. In the next five days she was given three more transfusions totaling 1550 cc., at the end of which time her red-cell count was 1,970,000 with 45 per cent hemoglobin. Her bleeding time on the twenty-fourth day was 20½ minutes, and a catheter urine specimen on the twenty-sixth day was grossly bloody. The patient had refused to have a splenectomy but finally consented to the operation, which was done on the thirty-fourth day. Preoperative and postoperative transfusions were given. The bleeding time immediately after the operation was 9 minutes, and the following day it was 3½ minutes. The clotting time was 4 minutes. On the second postoperative day all bleeding from the gastrointestinal and genitourinary tracts had stopped. Two days later the bleeding and clotting times were both 3 minutes, and there was slight clot retraction at the end of twenty hours. The red-cell count was 2,450,000 with 46 per cent hemoglobin, and the white-cell count was 11,000 with 86 per cent polymorphonuclears, 10 per cent lymphocytes, 3 per cent monocytes and 1 per cent eosinophils. The serum protein was 4 gm. per cent. On the eighth postoperative day the bleeding and clotting times were 3 and 4 minutes respectively, and clot retraction was complete in two hours. She was discharged on the fifty-fifth day. Her red-cell count at that time was 3,250,000 with 65 per cent hemoglobin, and the white-cell count was 8500. The platelets were still apparently reduced in number.

Final admission (eleven weeks later). After discharge she went to a convalescent hospital, where she remained for two weeks. She was very weak and still had a blotchy macular eruption on her face, arms and chest, which was crusted and itched a good deal. She also had daily nosebleeds which were scant in amount, not nearly so profuse as before her first entry. About six weeks before re-entry she again began to have joint pains which were much more severe than any she had had before and were her chief complaint at the time of re-entry. One joint after another in her legs became swollen and painful and remained so for about a week when the process would gradually subside, only to recur later. Her knees were most constantly affected. She never noticed redness or discoloration of the joints. The tendons of the middle two fingers of each hand periodically contracted so that she was unable to straighten the fingers and remained in that condition for several days. The skin lesions had gradually become more advanced, and the patient felt that during the month before re-entry she had lost a good deal of strength and weight. After the splenectomy her menstrual periods had been regular but quite scanty, lasting only three days. During her last period before re-entry she had noticed some small black and blue spots on her buttocks; these promptly disappeared. During the entire period between entries she had taken daily doses of codeine and aspirin. She had had no hematemesis, melena, hematuria, hemoptysis, nausea, vomiting, diarrhea or abdominal or chest pain. She had had no pains in her muscles and no neurologic symptoms.

Physical examination showed a fairly well-developed and nourished woman, who did not appear to be acutely ill. There was a blotchy macular and papular skin eruption on the face, neck, anterior midchest and arms, with a shiny atrophic surface and some scaling and induration. Many of the lesions had been excoriated. There were similar lesions on the labia majora, and there were a few small petechiae on the inner aspects of the thighs. There was slight generalized enlargement of the lymph nodes. The heart, lungs and abdomen were negative, except for the splenectomy scar. The uterus was enlarged to about the size of an orange and was freely movable. The blood pressure was 115 systolic, 80 diastolic.

The temperature was 99°F., the pulse 90. The respirations were 20.

The urine had a specific gravity of 1.018, and contained a very slight trace of albumin. The sediment contained many white cells and occasional hyaline and granular casts. A urine concentration test gave a maximum specific gravity of 1.016. The blood showed a red-cell count of 3,600,000 with 65 per cent hemoglobin, and a white-cell count of 9500 with 78 per cent polymorphonuclears, 21 per cent lymphocytes and 1 per cent monocytes. The guaiac test on the stool was negative. The bleeding time was 1½ minutes, the clotting time 14½ minutes, and the tourniquet test negative. The sedimentation rate was 1.99 mm. per minute. A blood culture gave no growth.

An x-ray of the chest on the fifth day showed definite change from the last examination four months previously. The transverse diameter of the heart was about 3 cm. larger, and there was diffuse dilatation. There was a little passive congestion in the lung fields. X-ray photographs of the hands showed tufting of the terminal phalanges suggesting pulmonary osteoarthropathy. X-rays of the sinuses were negative.

A urine specimen on the ninth day contained a trace of albumin, and all subsequent urine speci-

mens likewise contained large amounts. An electrocardiogram on the ninth day showed definite but slight, right-axis deviation. A phenolsulfonphthalein test of kidney function on the eleventh day showed an excretion of 30 per cent in one hour with only 5 per cent excreted in the first fifteen minutes. On the following day the nonprotein nitrogen of the blood was 31 mg. per cent. Her temperature rose to 101.5°F. on that day and until her death, eleven days later, ranged between 100 and 103.5°F. On the fourteenth day her face was somewhat puffy, and she complained of persisting headache. During the next three days the nonprotein nitrogen of the blood serum rose to 58 mg. per cent. The blood chlorides were equivalent to 104 cc. of N/10 sodium chloride. An x-ray picture of the chest on the sixteenth day showed further marked increase in the size of the heart on both sides. There was slight haziness over the left lower lung field. She became somewhat drowsy, and her heart had a gallop rhythm with many irregular beats. She finally lapsed into coma and died on the twenty-third day.

Differential Diagnosis

Dr. Soma Weiss*: In the diagnosis of a case with symptoms and signs related to many organs, three methods of approach are available. In the first place, one can undertake the differential interpretation of a single presenting symptom or sign, drawing in other findings thereafter through a similar analysis. The parallel direction of the interpretations of the clinical findings analyzed suggests the diagnosis. The second method is followed if the entire clinical picture can be translated at once into a single, well-understood physiologic or morphologic mechanism. Finally, there are cases in the diagnosis of which we still follow the time-honored nosologic correlation of clinical symptomatology with postmortem findings. This method is apt to be practiced in the diagnosis of diseases whose nature we do not understand.

In the interpretation of this case I shall follow the last method, first, because after reading the record of this patient a specific diagnosis forced itself upon me and, secondly, because the nature of the disease in question, if I am correct, is but poorly understood and vaguely defined.

A young woman develops fatigue, loss of weight, cough, attacks of tender, hot, swollen joints, sore muscles, fever, persistent skin lesions as described and a hemorrhagic tendency, which is at first slight and later more pronounced. The heart is normal except for a systolic murmur. In the late stage of the disease it becomes enlarged and right-axis deviation develops. There is secondary anemia with reduced platelets. The bone marrow is hyperactive. Splenectomy is performed, which temporarily abolishes the hemorrhagic tendencies. For several months the patient remains weak, with remissions. Meanwhile, the skin lesions persist and advance. Gradually the hemorrhagic tendency and joint involvement return. Subsequently, generalized lymphadenopathy develops. Density of the basal portions of the lungs increases. Changes in the terminal phalanges of the fingers suggest osteoarthropathy. The sedimentation rate of the blood cells is increased. Blood culture is negative. Albumin appears in the urine and increases in amount. There is a tendency to fixation of the specific gravity of the urine. The nonprotein nitrogen becomes elevated, and the kidney functions impaired. The patient dies in coma after a progressive illness of over a year's duration.

The diagnosis is acute *disseminated lupus erythematosus*. At least, one can state with a considerable degree of clinical certainty that all the features in the case are entirely compatible with this disease. Indeed, it is difficult to find another disease which can explain more than part of the symptoms. Thus I believe, for reasons which because of lack of time I shall omit, that this patient did not suffer from rheumatic fever, subacute bacterial endocarditis, aplastic anemia, nonleukemic myelosis, lymphoma, Boeck's sarcoid or periarteritis nodosa. There may be further discussion about periarteritis nodosa later, but I do not believe that is the diagnosis in a clinical sense. I should prefer to discuss what is meant by the diagnosis of acute disseminated lupus erythematosus and what is the interpretation of the apparently bizarre features of the case in terms of morbid functions and structures.

The diagnosis of acute disseminated lupus erythematosus indicates a disease of unknown etiology with disseminated proliferative lesions of the minute blood vessels and lymphatics with a tendency to secondary thrombosis in these vessels. The disease is often associated with inflammation and proliferation of the surfaces of the serous cavities and the endocardium, and with thrombopenia.

In this particular case the lesions of the skin were rather widespread and characteristic, those of the bone marrow resulted in the clinical picture of thrombopenic purpura, those of the lymphatic system caused generalized lymphadenopathy, those of the heart resulted in dilatation, and those of the kidney produced a special form of vascular nephritis with glomerulitis; perhaps the disease also affected the lungs and certain serous surfaces.

Many of the outstanding features of the case are referable to disturbances of the bone marrow char-

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acterized by depressed function, particularly so far as platelets are concerned. The petechiae, hemorrhagic skin lesions, profuse menstruation, nosebleeds, hematemesis, hematuria, positive guaiac tests of the stools, positive tourniquet test, prolonged clotting time and lack of clot retraction are part of the syndrome of thrombocytopenic purpura — an organ manifestation of the disease. Thrombocytopenic purpura commonly occurs in lupus erythematosus, and it demonstrates the fact that this type of purpura is but a syndrome of a disease.

So far as involvement of the heart is concerned, there is generalized dilatation. This may have been caused by a pericarditis which is commonly present in the disease. There is no evidence of valvular deformity; nevertheless, nonbacterial verrucose endocarditis (Libman-Sachs syndrome) may well be present. These vegetations may be the result of sensitivity of valves to pressure along the line of closure. The probability of this is about 50 per cent. Whether the right ventricular preponderance is caused by pericarditis or by right-sided hypertrophy and dilatation due to involvement of the vascular and bronchial systems of the lungs cannot be stated with any degree of certainty.

The affection of the kidney is probably caused by arteritis, arteriolitis and vascular thrombotic lesions of the vessels of the glomeruli. I assume that, in spite of the coma, the patient did not die from uremia caused by the nephritis of visceral lupus erythematosus, but rather from a terminal pneumonic process.

I shall now comment on certain instructive features of the case. I am glad to note that the patient did not have a "butterfly distribution" of the skin lesions. This description is overemphasized, and we see it in but one group. The distribution and the sequence of involvement of various skin areas vary considerably. The moist surfaces, including the labia majora, may become involved, as in this case. At times the skin lesions may closely imitate those occurring in acute pellagra. In both diseases there is sensitivity of the skin to certain rays, to pressure and to inflammation in general.

Temperature reactions following transfusion, as in this case, are common in patients with severe blood dyscrasias. At times they precipitate pulmonary edema and coma.

I assume that splenectomy was undertaken because of the presence of thrombocytopenic purpura. This has been done in other cases in the past. It is usually, as in this case, of but temporary benefit. The platelets remained low after splenectomy, but nevertheless the bleeding stopped, indicating that the influence of splenectomy on bleeding does not depend entirely on changes in the number of the platelets.

Dr. Tracy B. Mallory: Dr. Holmes, would you care to commit yourself about the heart — whether it is hypertrophied or whether the apparent enlargement is due to pericarditis?

Dr. George W. Holmes: The general shape of the heart is that of a dilated heart. A considerable period of time has elapsed since she first began to show enlargement. It certainly is not the shape one would expect to see with hypertrophy of the ventricle. I do not believe we have sufficient evidence to distinguish between fluid and a dilated heart. My guess would be that there is more dilatation than fluid. These films were taken at close range and the heart probably is not nearly so large as it appears to be. One other point — I personally would not make a diagnosis of pulmonary heart disease from these films.

Dr. Jacob Lerman: I first saw this patient in the Out Patient Department, after the initial entrance, merely in a routine check-up. My attention was attracted by the fact that the rash, joint pains and facial swelling persisted. During this time she had taken considerable medication, such as codeine, aspirin and mandelic acid. Dr. Austin W. Cheever was called in to see her. We both agreed that the rash was not a drug eruption but probably of the same nature as the one present during her hospital stay. Consequently a diagnosis of lupus erythematosus was entertained and she was readmitted to the hospital with that diagnosis for further treatment and study.

I agree with Dr. Weiss that she developed the characteristic picture of lupus erythematosus. It was a surprise to hear him discuss the similarity between disseminated lupus erythematosus and pellagra. We have also entertained that idea and feel that a nutritional factor may be of importance in this disease. However, it is difficult to prove.

Another interesting point about lupus erythematosus is the following. Two years ago a patient with the characteristic picture of disseminated lupus erythematosus was found to have lymphoma, post mortem. More recently Dr. Myles P. Baker had a patient with the lesions similar to those of lupus erythematosus, but biopsy of a node showed multiple myeloma. It is possible that disseminated lupus erythematosus may be a manifestation of many diseases, and not a disease entity.

Dr. Jacob H. Swartz: I am not familiar with the case except from the discussion this morning. I am in accord with Dr. Weiss's complete discussion of the case, but I still wonder about drug eruptions. Drugs could give both the blood picture and the skin picture of lupus erythematosus with mucous membrane involvement.

Dr. Mallory: There was no history of taking drugs except what Dr. Lerman has mentioned.

DR. JAMES H. MEANS: It is interesting that she had syphilis. I suppose it had nothing to do with the present situation, but I should like to take note of it. At least she had positive Hinton and negative Wassermann tests, and is known to have had syphilis. I am also interested in what Dr. Lerman has said about this disease that we call lupus erythematosus to the effect that it may be a symptom of various diseases. I wonder if it ever might be a symptom of syphilis or of the combination of syphilis and toxic effect from antisyphilitic treatment. I do not know why it should: I simply mention the possibility.

CLINICAL DIAGNOSES

Disseminated lupus erythematosus.
Uremia.
Terminal pericarditis.
Latent syphilis.

DR. WEISS'S DIAGNOSES

Acute disseminated lupus erythematosus with thrombocytopenic purpura, cardiac dilatation, vascular nephritis with arteritis and glomerulitis, mediastinopericarditis (?), nonbacterial verrucose endocarditis (?) and pulmonary involvement with vascular changes (?).
Terminal pneumonia.

ANATOMICAL DIAGNOSES

(Acute disseminated lupus erythematosus.)
Periarteritis nodosa.
Bronchopneumonia.
Hydrothorax.
Hydropericardium.
Purpura.
Operation wounds: splenectomy; sternal biopsy; liver biopsy.

PATHOLOGICAL DISCUSSION

DR. MALLORY: From the pathologist's point of view lupus erythematosus is one of the most unsatisfactory diagnoses that he is ever called upon to confirm at autopsy. Dr. Weiss has mentioned a variety of vascular lesions which have been reported from time to time. Very few of them, however, are to be found in the average case. There is no visceral lesion as yet recognized which is constantly present in every case. A significant proportion show a lesion in the kidney which Baehr and Klemperer described and called a "wire loop lesion," — a thickening of individual capillary walls in certain portions of each glomerular tuft, — but in my experience many fatal cases of lupus erythematosus do not show it. Indeed we have found it in less than half of ours, whereas Baehr and Klemperer found it in considerably more than half of theirs. Also in the disease one finds lesions of larger blood vessels but they are not particularly common or at least in the course of looking through the average number of routine sections from an autopsy one is not apt to find such lesions. When one does find them they are somewhat variable in character, and I do not believe that anatomically they are specific. It is therefore impossible for the pathologist to say that Dr. Weiss's diagnosis is wrong, and yet I reached another diagnosis, which was periarteritis nodosa.

During the patient's life we had had opportunity to examine the spleen and also biopsies from the liver and the bone marrow. We could find no significant abnormalities.

Grossly, at autopsy, we found a normal-sized heart and a large pericardial effusion, which consisted of slightly turbid fluid. The kidneys showed slight abnormalities. The radial arteries seemed to be particularly prominent, and we found scattered petechial hemorrhages in the kidneys, throughout the gastrointestinal tract, and of course also in the skin, where they had been noted before autopsy. We were unable to make a diagnosis grossly and adopted the clinical diagnosis of lupus erythematosus which seemed to cover very satisfactorily all features of the case, but when the histologic preparations came through we found multiple arterial lesions in virtually every organ in the body. There were one or more involved vessels in every section of tissue which we made except in the lungs and in the skin. There I could find no arterial lesions. There was also a terminal pneumonia. The skin changes of edema, keratosis of the mouths of the coil glands, degeneration of the basal layer and slight lymphocytic infiltration are characteristic of lupus erythematosus. Since I am no dermato-histologist I should like to record that Dr. Hamilton Montgomery of the Mayo Clinic confirmed my impression of the skin slides. The lesions in the blood vessels were those of a panarteritis. There was necrosis of the media, intimal proliferation and sometimes thrombosis, and a small periarterial accumulation of cells, chiefly plasma cells, some monocytes, some erythrocytes, but very few eosinophils. So far as one individual lesion is concerned, I have seen something much like it in lupus erythematosus but I have never heard of lupus erythematosus with such extensive involvement of vessels.

DR. WEISS: At times the question arises whether we should accept the pathologist's or the clinician's diagnosis. We usually accept the pathologist's diagnosis as the final verdict. Without presumption on my part, however, I venture to say that in this instance the clinical diagnosis should

rule, and I back up this statement by the following facts. I am glad that Dr. Lerman has raised the question whether lupus erythematosus is anything but a reaction of the body to different agents. There is considerable evidence for that concept; nevertheless, as we see it clinically, lupus erythematosus is characterized by such widespread and specific involvement of internal organs and of the skin that it deserves the distinction of being called a syndrome or a disease. In this disease, vascular lesions are known to occur, and they can be one or another form of arteritis. A few cases of lupus erythematosus disseminatus with periarteritis-nodosa-like lesions have been reported in the literature. Therefore, the question arises whether it is more justifiable to correlate all the changes and make one diagnosis, or to pick out a few scattered vascular lesions and call that a disease. Certainly periarteritis nodosa is much less of a specific reaction than the syndrome of lupus erythematosus, because the more we see of periarteritis nodosa, the more we are impressed by the fact that it can occur as widespread lesions or as a local manifestation in one organ. It is found in rheumatic fever, and frequently the patient recovers. I should like to know whether Dr. Mallory agrees with this reasoning.

DR. MALLORY: I believe that the question has to be left open. I think it is utterly impossible from a postmortem examination to rule out lupus erythematosus.

CASE 24202

PRESENTATION OF CASE

A thirteen-year-old, white, American schoolgirl entered the hospital with the complaint of cough and chest pain of nine weeks' duration.

Nine weeks before entry she began to have pleuritic pain in the right upper chest anteriorly, accompanied by a mild unproductive cough and beginning weakness. The symptoms continued for two weeks, and during that period she lost about 12 lb. in weight. Her physician made a diagnosis of pneumonia and kept her in bed. At the end of the two weeks her chest pain disappeared entirely; but the cough, although lessened, continued practically unchanged. For the next month she was studied in an outside hospital. During that time she gradually regained some of her strength and weight. No treatment was given to her during that period. Three weeks before entry she returned home feeling reasonably well except for some persisting weakness and the continued cough. However, her physician would not allow her to return to school, and she was finally referred to this hospital for treatment. Her past history and family history were essentially negative. She did not have frequent colds or sore throats, and she had not been exposed to tuberculosis.

Physical examination revealed a well-developed but somewhat undernourished girl in no apparent distress. The trachea was in the midline but moved to the right on deep inspiration. The right chest expanded less than the left, and breath sounds and resonance were diminished over its entire area. No definite dullness or rales could be heard. The heart was apparently shifted to the right but was otherwise negative. The blood pressure was 116 systolic, 70 diastolic. The abdomen was negative.

The temperature was 98.6°F., the pulse 90. The respirations were 20.

The urine examination was negative. The blood showed a red-cell count of 4,830,000 with 89 per cent hemoglobin, and a white-cell count of 6400 with 50 per cent polymorphonuclears. The blood Hinton test was negative.

An x-ray of the chest showed displacement of the heart to the right and a definite expiratory shift to the left. There were bands of increased density in the right apical field. Within the right main bronchus there was a mass measuring 1.0 by 1.5 cm. which protruded far into the bronchus. Lipiodol studies were somewhat unsatisfactory because most of the lipiodol lodged below the mass. However, the mass seemed to be coated by it and appeared to arise from the right anterior aspect of the right main bronchus at the level of the carina with perhaps some protrusion into the trachea. Its lower margin lay close to the upper lobe bronchus.

On the eleventh day an operation was performed.

DIFFERENTIAL DIAGNOSIS

DR. CHARLES L. SHORT: This patient's history is essentially that of a pulmonary infection and does not give us much of a lead in diagnosis. Of course, such a history could be presented and often is by a patient who has a new growth in the lung. New growths, by obstructing the bronchi, frequently are the indirect cause of persistent infection in the distal portions of the lung. There is no mention of how much fever she had during her illness previous to admission. It says she had no sputum, which would be against a suppurative lesion of any extent, such as lung abscess, either with or without a foreign body, or bronchiectasis. She apparently had no hemoptysis. The physical examination is essentially that of partial obstruction to the right main bronchus. We find the right chest expanding less than the left. We have less air coming into the right lung and a shift of the heart to the right and some shift of the trachea to the right on inspiration. I think that is about

as far as we can go without the aid of the x-ray. We can simply say that the patient has a story which suggests an infectious pulmonary lesion but does not rule out a neoplastic process, and that on physical examination she has signs of partial obstruction of the right main bronchus.

X-Ray Interpretation

Dr. Aubrey O. Hampton: These films were taken at intervals over a period of two months. The first ones were taken at another hospital before bronchoscopy and show collapse of the right upper lobe and partial collapse of the right middle and lower lobes. The interspaces are narrowed on the right. The diaphragm is elevated, and the heart is displaced to the right. Nine days later the picture has changed. There is a little more collapse of the right lung, and a film six days later shows a further change — the right lung shows more air than it did. Then after bronchoscopy at another hospital these final pictures were obtained at this hospital. This first film was taken at expiration and shows quite a normal-looking chest; in fact if only that view had been taken the chest would have passed as normal with the exception of a few lines at the right apex. But the precaution was taken of making a second film on inspiration, and it shows shift of the mediastinum on the right side. Finally, if you look at the lateral view you can faintly see a round white mass in the region of the bifurcation of the trachea.

Dr. Short: Is that before lipiodol?

Dr. Hampton: Yes.

Dr. Short: That was not clear in the record.

Dr. Hampton: It was more distinctly seen before lipiodol injection because of the quality of the film and the position in which it was taken. With the catheter in position at the time they injected lipiodol you can see that the catheter meets an obstruction in the right main bronchus. A smooth round mass extends from the carina downward.

Differential Diagnosis (continued)

Dr. Short: The story of the bronchoscopy at the other hospital introduces an additional element which was not in the history, but I shall go ahead, without paying any attention to it, with the facts that are in the history here. The x-rays certainly bear out the clinical impression that she had obstruction to the right main bronchus and, furthermore, establish the fact that there was an actual mass in the bronchus. I think that this positive finding rules out any of the ordinary pulmonary infections, and we do not have to consider pneumonitis, lung abscess or bronchiectasis. To take up some other infections, I believe it is possible for syphilis to give a granulomatous type of mass in the bronchus, but I am sure it is very rare, and this patient had a negative Hinton test. I do not believe that sarcoid or yeast infection could give this picture. I think we do have to pause for a while on tuberculosis. She had no signs by x-ray of any parenchymatous involvement. She could conceivably have tracheobronchial tuberculosis with a granulomatous type of lesion in the main bronchus causing a partial bronchial obstruction. I believe, however, that she should show other signs of tuberculosis if that were the case, probably parenchymal tuberculosis, and have a positive sputum. So I think we can mention that in passing as an interesting possibility.

Could this mass represent a foreign body? There is no history of aspiration of a foreign body, no history of operation on the upper respiratory tract before the onset of symptoms, and if she had had a foreign body, she would probably have had more of a suppurative process. We are left with a consideration of this mass as representing a neoplasm in the bronchus. I do not know how we can say what type of neoplasm it is without more definite information. Perhaps this was discovered at the other hospital by biopsy at the time of bronchoscopy. She has had no bleeding, which would be somewhat against her having a benign polyp. Of course, the child's age is against a malignant growth of the bronchus, but I believe such cases have been reported in children and in young adults. We have no evidence as to whether she had a benign growth, such as a fibroma or lipoma, or the so-called benign adenoma. The most common new growth in this situation would be an adenocarcinoma of the bronchus. The history, as I mentioned before, is not against this diagnosis. She may have had the tumor a long while before she had symptoms, as we sometimes see metastases in the brain in patients with carcinoma of the bronchus before any suspicion has been directed toward the lung. If this is the diagnosis, there are no signs or evidence of metastases. Simply because this is the most common new growth in such a situation, I will say it is an adenocarcinoma of the bronchus.

Dr. Tracy B. Mallory: The case was presented to us in slightly different form; the patient was sent to us with the diagnosis already made by bronchoscopy. The diagnosis was fibrosarcoma, which seemed very astonishing as we had never seen or heard of primary fibrosarcoma of the bronchus, but an excellent slide which was sent to us enabled us to confirm the diagnosis.

Dr. Churchill, would you like to make a comment?

Dr. Edward D. Churchill: Having the defi-

nite diagnosis of fibrosarcoma by biopsy, the only possible treatment seemed to be extirpation, probably of the entire lung. The girl was anesthetized, and the right pleural cavity opened. The right lung was found to be blown up as tightly as a drum, and no air could be pressed out of it. I was beginning to worry about what I was going to do in order to reach the hilum around this tightly blown-up lung when the patient had a profuse hemorrhage from within into her bronchial tree, which flooded the other lung with blood. She died, presumably of a hemorrhage originating at the point of the endobronchial tumor. In retrospect, or in facing another case with retention emphysema of the lung, I think that I certainly should make every effort to have the bronchus cleared by bronchoscopy before attempting pneumonectomy. However, the fatal hemorrhage might very well have followed bronchoscopic removal of the growth.

Preoperative Diagnosis

Fibrosarcoma of right main bronchus (by bronchoscopic biopsy).

Dr. Short's Diagnosis

Adenocarcinoma of the bronchus.

Anatomical Diagnoses

Fibrosarcoma of right main bronchus with ulceration.
Chronic pneumonitis, slight.
Fatal bronchial hemorrhage.
Functional emphysema.

Pathological Discussion

Dr. Mallory: At postmortem examination we found the cause of the sudden hemoptysis, or at least what seemed so to us. The major part of the tumor, which was 5 mm. in diameter, was lying perfectly free in the bronchus. It had evidently ulcerated off its base, and I think we have reason to believe that it had done so in the last few minutes before death because the cells in it were perfectly preserved. If the ulceration had occurred a few hours before, the tumor would probably have been expectorated; or if it had been retained in the bronchus, it would have begun to show signs of cytolysis or postmortem degeneration, which was not present. We found an erosion in the mucosa of the bronchus, which I think was without question the point at which the tumor had broken off, since in the bronchial wall beneath it there was persistent tumor. Our sections of the tumor are essentially the same as those of the bronchoscopic specimen removed at the other hospital. It was quite evident that it was a spindle-cell sarcoma growing at a moderate rate. It was definitely invasive at the base. There could be no question of its malignancy, and there was no possibility of cure except by pneumonectomy.

A Physician: Were the glands involved?

Dr. Mallory: They were negative, as you would expect with sarcoma.

A Physician: Were they enlarged?

Dr. Mallory: Yes, and throughout the right lung there was evidence of a certain amount of chronic infection. The lymphoid tissue in the parenchyma of the lung, for instance, showed definite hypertrophy, and the interlobular septa were edematous.

Dr. Churchill: About how far below the carina of the trachea was the point of attachment?

Dr. Mallory: It was just at the first bifurcation of the right bronchus.

Dr. Churchill: We could have reached it?

Dr. Mallory: Yes.

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COMMUNICATIONS should be addressed to the NEW ENGLAND JOURNAL OF MEDICINE, 8 Fenway, Boston, Mass.

WHEELER-LEA ACT

THE Wheeler-Lea Act to control false and fraudulent advertising of foods, drugs and cosmetics was recently passed by Congress and signed by the President. This bill is complex and difficult to understand. It would seem to control satisfactorily, with proper penalties, this extremely important matter of false and fraudulent advertising, but there is considerable doubt as to whether the purpose of the bill will be accomplished. In the first place it brings in a divided responsibility inasmuch as the enforcement of the provisions of this bill is placed in the hands of the Federal Trade Commission, while the other control of drugs, foods and cosmetics presumably will remain in the hands of the Food and Drug Administration of the Department of Agriculture, where it was placed in 1906 under the original Food and Drug Act. In the second place it seems that the procedures to be followed under this proposed bill by the Federal Trade Commission lend themselves particularly well to delay and evasion. In the third place past experience suggests that the Federal Trade Commission will not enforce the necessary procedures effectively.

Why was such a bill written and approved? The proper answer seems to be that powerful business interests of the trade in drugs and cosmetics saw in this method an escape from the more effective provisions contained in a bill (Senate 5) passed in the Senate, which placed all phases of control under the Food and Drug Administration. Perhaps the trade thought it wiser not to antagonize the medical and lay public by an open attack on the latter bill and to seem to favor control without actually allowing control. If so, they could hardly have taken a better way. The medical profession has used its influence for an adequate control; it seems that it has lost out. Even the provisions of the old Food and Drug Act were better than those of the new, unless the Federal Trade Commission awakens to the fact that the trade has pulled its leg and vigorously enforces these regulations against false and fraudulent advertising by minimizing the possible delays and by imposing maximal penalties. We await with curiosity to see how this new act will be made to work.

THE COMMONWEALTH FUND

THE Commonwealth Fund of New York has recently released its nineteenth annual report. Originally endowed by Mrs. Stephen V. Harkness in 1918, the fund has, during the past year, been the recipient of two gifts from its president, Edward S. Harkness, totaling $8,000,000 and bringing the total endowment of the fund to over $50,000,000. Of Mr. Harkness's recent gifts it is planned for the present to devote the income from $3,000,000 to the development of rural hospitals, and that from $5,000,000 to medical education and research.

Grants of approximately $1,800,000 were made from current income in the year ending Septem-

ber 30, 1937, going toward a variety of useful purposes. The fund has already been responsible for the building of ten community hospitals in rural communities, eight of which are already in operation. These well-equipped hospitals of approximately fifty beds are located in Maine, Ohio, Virginia, Kentucky, Mississippi, Oklahoma, Kansas and Utah, with two in Tennessee.

The value of these hospitals to their communities can hardly be estimated, but they are also serving another purpose in which the fund is keenly interested — the attracting to small communities of well-trained young physicians. Fifty young physicians have already settled in the vicinity of the first six of these institutions, and as a further step in this direction a number of scholarships have been provided at Vanderbilt University, Tulane University and Tufts College medical schools. In addition more than 400 fellowships have been made available to older men in practice who wish to brush up on current medical information.

In the department of medical education, funds have been provided to strengthen the teaching of preventive medicine at Vanderbilt, Tulane and Tufts; at Tulane the expansion of the Department of Pediatrics has been aided; at Cornell, Columbia and Harvard the fund has helped to finance teaching clinics for emotional and behavior problems. The teaching and the study of psychiatry have been assisted at the University of Louisville, Johns Hopkins and the University of Colorado.

The fund has aided medical research in general in a number of medical schools and hospitals, selecting problems that give promise of contributing sooner or later to better medical practice. Thus, during the past year, seven new undertakings have been selected for subsidy in addition to those carried forward from previous years. Public health has been aided in Tennessee and Mississippi by the provision of traveling units to advise local health units, and in Massachusetts by a tuberculosis eradication campaign in a Berkshire County district.

These activities do not close the list of the fund's philanthropies. A child-guidance clinic is still being supported in London, problems in legal research are being studied, and a number of British fellowships are supported.

The time may be at hand when it will be necessary for public funds to underwrite medical education and scientific research, but if the independence, initiative and integrity of private philanthropy that are exemplified by the activities of the Commonwealth Fund disappear, medicine will be the loser.

MASSACHUSETTS MEDICAL SOCIETY

Annual Meeting of the Council

The annual meeting of the Council will be held in the Penthouse of the Hotel Bradford, Boston, on Wednesday, June 1, at 10:30 a. m.

Business:

1. Reading record of last meeting in abstract.
2. Nominating Committee retires to deliberate.
3. Report of Committee on Membership and Finance.
4. Reports of committees to consider petitions for restoration to the privileges of fellowship and new committees to be appointed.
5. Reports of standing committees and special committees.
6. Election of officers and orator by ballot.
7. Appointment of committees for ensuing year, both standing and special.
8. Proposed changes in by-laws.
9. Incidental business.

Alexander S. Begg, *Secretary.*

Councilors are asked to sign one of the two attendance books before the meeting. The Cotting Luncheon will be served immediately after the meeting.

MASSACHUSETTS MEDICAL SOCIETY

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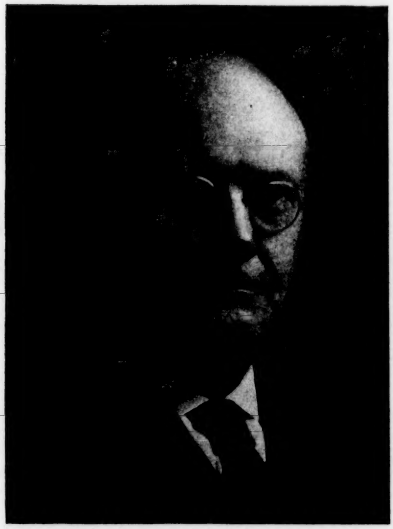

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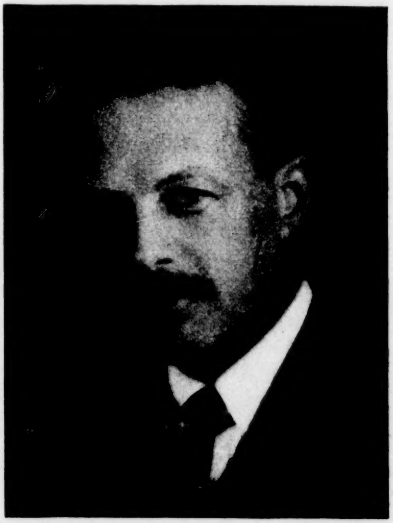

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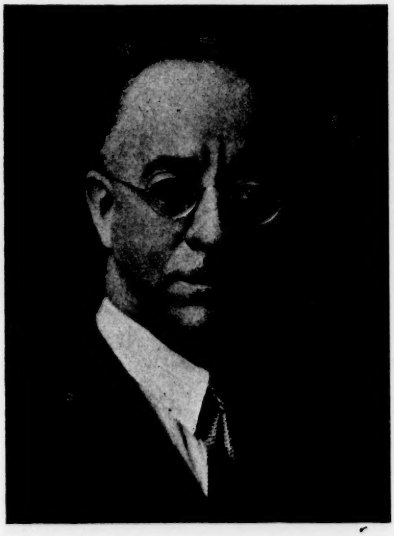

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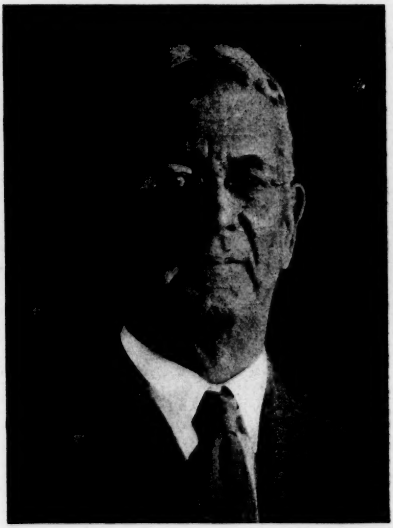

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THE ONE HUNDRED AND FIFTY-SEVENTH ANNIVERSARY

Tuesday, Wednesday and Thursday, May 31 and June 1 and 2
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STANDING COMMITTEES

Of Arrangements

W. S. Burrage, R. P. Stetson, Augustus Thorndike, Jr., E. J. O'Brien, Jr., W. T. O'Halloran.

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On Membership and Finance

D. N. Blakely, G. C. Caner, J. E. Fish, H. F. Newton, H. Q. Gallupe.

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On Permanent Home

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On State and National Legislation

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On Medical Defense

F. G. Balch, E. D. Gardner, F. B. Sweet, A. W. Allen, W. R. Morrison.

ASSIGNMENTS OF COMMITTEEMEN AND AIDS

TUESDAY — MAY 31

MORNING

Section of Surgery — Dr. Augustus Thorndike, Jr., in charge.

Aids — Dr. J. A. Halsted, Dr. Harrison Kennard.

Section of Pediatrics — Dr. R. P. Stetson, in charge.

Aids — Dr. J. R. Graham, Dr. G. P. Sturgis.

AFTERNOON

Section of Dermatology and Syphilology — Dr. W. T. O'Halloran, in charge.

Aids — Dr. F. M. O'Connor, Dr. William Egan.

Section of Obstetrics and Gynecology — Dr. E. J. O'Brien, Jr., in charge.

Aids — Dr. T. E. Caulfield, Jr., Dr. J. A. Hennessey.

EVENING

Shattuck Lecture — Dr. W. S. Burrage, in charge.

Aids — Dr. G. D. Krumbhaar, Dr. Lendon Snedeker.

WEDNESDAY — JUNE 1

MORNING

Council Meeting — Dr. E. J. O'Brien, Jr., in charge.

Combined Clinical Meeting — Dr. Augustus Thorndike, Jr., *Chairman.*

Dr. W. T. O'Halloran, in charge of morning session.

Aids — Dr. F. M. O'Connor, Dr. William Egan, Dr. G. D. Krumbhaar, Dr. Lendon Snedeker.

Dr. R. P. Stetson, in charge of afternoon session.

Aids — Dr. J. R. Graham, Dr. G. P. Sturgis, Dr. J. A. Halsted, Dr. Harrison Kennard.

AFTERNOON

Golf Tournament — Dr. W. T. O'Halloran, in charge.

EVENING

Annual Dinner — Dr. R. P. Stetson, in charge.

Aids — Dr. J. R. Graham, Dr. G. P. Sturgis.

THURSDAY — JUNE 2

MORNING

Section of Medicine — Dr. W. T. O'Halloran, in charge.

Aids — Dr. F. M. O'Connor, Dr. William Egan.

Section of Radiology and Physiotherapy — Dr. R. P. Stetson, in charge.

Aids — Dr. J. R. Graham, Dr. G. P. Sturgis.

NOON

Annual Meeting and Oration — Dr. W. S. Burrage, in charge.

Aids — Dr. G. D. Krumbhaar, Dr. Lendon Snedeker.

GENERAL INFORMATION

All meetings, commercial and scientific exhibits, clinical meetings, luncheons and dinner will be held in the Hotel Bradford.

A Bureau of Information will be maintained at the Registration Desk on the stage of the Ballroom. Physicians expecting to receive telephone calls should leave proper information with the hotel operator.

Fellows are requested to register as soon as they arrive and to get tickets for the Annual Dinner and for the Thursday Luncheon. The charge for the Annual Dinner will be $1.00 to those who are not in arrears and the Thursday Luncheon will be without charge to those whose dues have been paid.

The scientific exhibits are located in the balcony of the Ballroom.

The commercial exhibits are all located in the Ballroom.

The Physicians' Art Society will hold an exhibition throughout the meeting in both the Men's and Women's Lounge.

Free parking for members' cars has been provided in the parking lot on Hollis Street, directly opposite the hotel.

Golf Tournament. There will be a golf tournament for members on Wednesday afternoon, June 1, at the Commonwealth Country Club, 91 Algonquin Road, Newton Centre. Information and instruction sheets may be procured at the Registration Desk.

TUESDAY — MAY 31

Section of Surgery

10:00 o'clock

Penthouse, Fourteenth Floor

Dr. Leland S. McKittrick, Boston, *Chairman.*
Dr. John M. Fallon, Worcester, *Secretary.*

1. *Immediate or Deferred Surgery for General Peritonitis Associated with Appendicitis. a. In Adults.* Dr. Irving J. Walker, Boston. *b. In Children.* Dr. William E. Ladd, Boston.

2. *Treatment of Peritonitis Complicating Appendicitis.* Dr. Arthur M. Shipley, professor of surgery, University of Maryland School of Medicine, Baltimore. (By invitation.)

   Discussion by: Dr. John M. Birnie, Springfield, and Dr. James C. McCann, Worcester.

3. *Acute Bowel Obstruction: Its recognition and management.* Dr. Owen H. Wangensteen, professor of surgery, University of Minnesota Medical School, Minneapolis. (By invitation.)

   Discussion by: Dr. Howard M. Clute, Boston.

4. *Rectal, Intravenous and Prolonged Spinal Anesthesia.* Dr. Lincoln F. Sise, Boston.

   Discussion by: Dr. Sidney C. Wiggin, Boston.

Section of Pediatrics

10:00 o'clock

Oval Room, Mezzanine Floor

Dr. Paul W. Emerson, Boston, *Chairman.*
Dr. James M. Baty, Belmont and Boston, *Secretary.*

PANEL DISCUSSION

Cyanosis of the Newborn

Leader, Dr. Charles F. McKhann, Children's Hospital, Boston.

Intracranial, Dr. Stewart H. Clifford, Boston Lying-in Hospital.

Circulatory, Dr. Hyman Green, Beth Israel Hospital, Boston.

Pulmonary, Dr. James M. Baty, Boston Floating Hospital.

Pathological, Dr. Sidney Farber, Children's Hospital, Boston.

Obstetrical, Dr. Harold M. Teel, Boston Lying-in Hospital.

Section of Obstetrics and Gynecology

2:00 o'clock

Studio C, Fifth Floor

Dr. Raymond S. Titus, Boston, *Chairman.*
Dr. Roy J. Heffernan, Boston, *Vice-Chairman.*
Dr. M. Fletcher Eades, Boston, *Secretary.*

1. *Résumé of Maternal Mortality Study in the State of Massachusetts for the Year 1937.* Dr. Roy J. Heffernan, Boston.

2. *Cesarean Section in the State of Massachusetts in the Year 1937.* Dr. Robert L. DeNormandie, Boston.

3. *Preliminary Report of the Small Obstetrical Hospitals in the State of Massachusetts.* Dr. Joseph C. Merriam, Framingham.

   Discussion to be opened by Dr. Samuel A. Cosgrove, attending obstetrician, Jersey City Medical Center and Christ hospitals, Jersey City, New Jersey. (By invitation.)

Section of Dermatology and Syphilology

2:00 o'clock

Oval Room, Mezzanine Floor

Dr. George A. Dix, Worcester, *Chairman.*
Dr. J. Harper Blaisdell, Boston, *Secretary.*

1. *The Relation of Dermatology to General Medicine.* Dr. George A. Dix, Worcester.

2. *Lupus Erythematosus: Present status in regard to etiology and treatment.* Dr. Maurice M. Tolman, Boston.

   Discussion by: Dr. E. Lawrence Oliver, Boston.

3. *Are Patch Tests of Real Value in Dermatology?* Dr. John G. Downing, Boston.

   Discussion by: Dr. Mildred L. Ryan, Brockton, and Dr. Bernard Appel, Boston.

4. *Atopic Dermatitis.* Dr. Joseph Goodman, Boston.

   Discussion by: Dr. C. Guy Lane, Boston, and Dr. Francis M. Thurmon, Boston.

5. *Syphilitic Scars of the Spirit.* Dr. Austin W. Cheever, Boston.

   Discussion by: Dr. Ray L. Whitney, Boston.

8:00 o'clock

Lobby Salon, First Floor

ADDRESS

Work and Aims of the Public Health Service. Dr. Thomas Parran, Surgeon-General, United States Public Health Service, Washington, D. C.

The Shattuck Lecture

America's Contribution to Nosography. Dr. David Riesman, emeritus professor of clinical medicine and professor of the history of medicine at the University of Pennsylvania School of Medicine, Philadelphia.

Light refreshments will be served after the lecture.

* * *

WEDNESDAY — JUNE 1

Combined Clinical Meeting

9:00 a. m. — 1:00 p. m. 2:00 p. m. — 5:00 p. m.

Lobby Salon, First Floor

BOSTON LYING-IN HOSPITAL STAFF

9:00-9:15 a. m.

1. *Placenta Previa.* Dr. M. Fletcher Eades, Boston.

9:15-9:30 a. m.

2. *Premature Separation of the Normally Implanted Placenta.* Dr. Charles P. Sheldon, Boston.

CARNEY HOSPITAL STAFF

9:30-9:45 a. m.

3. *Median-Nerve Lesions of the Hand: Surgical treatment and results.* Dr. William E. Browne, Boston.

PETER BENT BRIGHAM HOSPITAL STAFF

9:45-10:00 a. m.

4. *Innocent Gallstones and Harmful Cholecystectomy?* Dr. David Cheever, Boston.

10:00-10:15 a. m.

5. *The Oral Cavity as an Aid to the Diagnosis of Metabolic Disorders.* Dr. M. S. Strock, Boston.

10:15-10:30 a. m.

6. *Factors in the Course of Heart Disease.* Dr. C. Sidney Burwell, Boston.

10:30-10:45 a. m.

7. *Atypical Rheumatic Fever.* Dr. Samuel A. Levine, Boston.

BETH ISRAEL HOSPITAL STAFF

10:45-11:00 a. m.

8. *The Treatment of Dangerous Reactions to Novocaine.* Dr. Samuel Gilman, Boston.

11:00-11:15 a. m.

9. *The Value of Palliative Surgical Therapy of Advanced Carcinoma of the Gastrointestinal Tract.* Dr. Charles G. Mixter, Boston.

BOSTON CITY HOSPITAL STAFF

11:15-11:30 a. m.

10. *The Diagnosis and Treatment of True Toxemia of Pregnancy.* Dr. Maurice B. Strauss, Boston.

11:30-11:45 a. m.

11. *The Heart in Anemia.* Dr. James M. Faulkner, Boston.

11:45-12:00 m.

12. *The Protean Character of the Leukemoid States.* Dr. Henry Jackson, Jr., Boston.

12:00 m.-12:15 p. m.

13. *Plasma Fibrinogen and the Sedimentation Rate.* Dr. Thomas H. Ham, Boston.

HUNTINGTON MEMORIAL HOSPITAL STAFF

12:15-12:45 p. m.

14. *The Value of Million-Volt Roentgen Rays in Cancer Therapy.* Dr. Richard Dresser, Boston.

SUPERVISING CENSORS' ANNUAL MEETING

10:00 a. m.

Parlor 646, Sixth Floor

ANNUAL MEETING OF COUNCIL

10:30 a. m.

Penthouse, Fourteenth Floor

This meeting will be followed by the Cotting Luncheon to councilors. Should the Council meeting be prolonged, the councilors will reconvene for an adjourned meeting.

Notices of the meeting, with the order of business, will be mailed to councilors on May 24.

COMBINED CLINICAL MEETING (continued)

NEW ENGLAND DEACONESS HOSPITAL STAFF

2:00-2:15 p. m.

15. *Diabetic Coma.* Dr. Alexander Marble, Boston.

2:15-2:30 p. m.

16. *A Consideration of Some of the Surgical Aspects of Cancer.* Dr. Frank H. Lahey, Boston.

CHILDREN'S HOSPITAL STAFF

2:30-2:45 p. m.

17. *Serum Therapy in Pneumonia in Infants and Children.* Dr. Benjamin W. Carey, Jr., Boston.

2:45-3:00 p. m.

18. *The Treatment of Club Feet in Infancy.* Dr. William T. Green, Boston.

3:00-3:15 p. m.

19. *The Surgical Significance of Urinary Incontinence in Infancy and Childhood.* Dr. Thomas H. Lanman, Boston.

MASSACHUSETTS GENERAL HOSPITAL STAFF

3:15-3:30 p. m.

20. *Peptic Ulcer from a Surgical Point of View.* Dr. Arthur W. Allen and Dr. Claude E. Welch, Boston.

3:30-3:45 p. m.

21. *The Treatment of the Sick Liver.* Dr. Chester M. Jones, Boston.

3:45-4:00 p. m.

22. *Gout.* Dr. John H. Talbott, Boston.

4:00-4:15 p. m.

23. *The Surgical Treatment of Bronchiectasis.* Dr. Edward D. Churchill, Boston.

FAULKNER HOSPITAL STAFF

4:15-4:30 p. m.

24. *The Practical Relation of Organotherapy to Medical Practice.* Dr. William R. Ohler, Boston.

MASSACHUSETTS MEMORIAL HOSPITALS STAFF

4:30-4:45 p. m.

25. *Osteomyelitis of the Frontal Bone.* Dr. Leighton F. Johnson, Boston.

NEW ENGLAND MEDICAL CENTER STAFF

4:45-5:00 p. m.

26. *Some Observations on Salt and Water Exchange as Related to the Management of Heart Failure.* Dr. Samuel H. Proger, Boston.

ANNUAL DINNER

7:15 p. m.

Lobby Salon, First Floor

Fellows wishing to sit together at the dinner please send their names to the Committee of Arrangements, 8 Fenway, Boston, at the earliest possible moment.

Tickets for the dinner (price $1.00) should be obtained at the Registration Desk.

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THURSDAY — JUNE 2

SECTION OF MEDICINE

9:30 a. m.

Penthouse, Fourteenth Floor

Dr. William H. Robey, Boston, *Chairman.*
Dr. Clark W. Heath, Boston, *Secretary.*

1. *The Diabetic Situation in Massachusetts.* Dr. Elliott P. Joslin, Boston.

   Discussion by: Dr. Bernard Rabinovitz, Springfield, and Dr. William Mason, Fall River.

2. *Attitudes in Relation to Illness.* Dr. Lawrence K. Lunt, Boston.

   Discussion by: Dr. Arlie V. Bock, Cambridge, and Dr. G. Colket Caner, Boston.

3. *Sulfanilamide. a. Its Value and Mode of Action in the Treatment of Various Infections.* Dr. Chester Keefer, Boston.

   b. The Treatment of Pneumococcic Meningitis. Dr. Maxwell Finland.

   Discussion by: Dr. Conrad Wesselhoeft, Boston, and Dr. Edwin H. Place, Boston.

4. *The Significance of Latent Forms of Tuberculosis.* Dr. J. Burns Amberson, Jr., visiting physician, Tuberculosis Service, Bellevue Hospital, New York City. (By invitation.)

   Discussion by: Dr. Henry D. Chadwick, Boston, and Dr. Donald S. King, Boston.

SECTION OF RADIOLOGY AND PHYSIOTHERAPY

9:30 a. m.

Oval Room, Mezzanine Floor

Dr. Frank E. Wheatley, Milton, *Chairman.*
Dr. Herman A. Osgood, Boston, *Secretary.*

1. *X-Ray Treatment of Cancer in the Smaller Communities.* Dr. Frederick W. O'Brien, Boston.

2. *Physical Measures of Value to the General Practitioner in the Treatment of Arthritis.* Dr. Frank H. Krusen, director of the Section on Physical Therapy and associate professor of physical medicine at the Mayo Clinic, Rochester, Minn. (By invitation.)

   Discussion by: Dr. Robert B. Osgood, Boston, and Dr. George R. Minot, Boston.

3. *The Roentgen-Ray Therapy of Inflammatory Lesions.* Dr. Frederick O. Coe, professor of radiology, Georgetown University Medical School, Washington, D. C. (By invitation.)

ANNUAL MEETING

12:00 m.

Lobby Salon, First Floor

Business of the Annual Meeting.

Address by the President.

Annual Oration: *The Passing of Surgical Yeomen.* Dr. Allen G. Rice, Springfield.

At the close of the Annual Oration, luncheon will be served to those who have obtained tickets.

LADIES' COMMITTEE

Mrs. Channing Frothingham, *Chairman.*

Mrs. Walter S. Burrage, Mrs. Augustus Thorndike, Jr., Mrs. Edward J. O'Brien, Jr., Mrs. William T. O'Halloran, Mrs. W. Jason Mixter, Mrs. Frederick L. Good, Mrs. Herrman L. Blumgart, Mrs. Harold C. Stuart, Mrs. G. Kenneth Mallory, Mrs. Franc D. Ingraham.

LADIES' CALENDAR

TUESDAY — MAY 31

Registration, Hotel Bradford.

Dinner and entertainment at Gundlach's Hofbrau, 43 Stanhope Street, Boston, at 6:30 p. m., as guests of the Massachusetts Medical Society, to meet Mrs. Frothingham and the wives of the district presidents. No charge.

Shattuck Lecture — 8:00 p. m., Hotel Bradford — given by Dr. David Riesman, emeritus professor of clinical medicine and professor of the history of medicine, University of Pennsylvania School of Medicine, Philadelphia, and an address by Surgeon-General Thomas Parran, U. S. Public Health Service, of Washington.

WEDNESDAY — JUNE 1

Registration.

Visit to the Peter Bent Brigham and the Beth Israel hospitals from 10:00 a. m. to 12:00 m.

Tea — the Isabella Stewart Gardner Museum, Fenway Court. There will be a tour of the museum from 3:00 to 4:00 p. m., followed by a reception. Tea will be served at 4:30 p. m. Busses leave Hotel Bradford at 2:45 p. m. No charge.

Ladies are invited to hear the speakers after the annual dinner of the Massachusetts Medical Society at the Hotel Bradford at 8:15 p. m.

THURSDAY — JUNE 2

Registration.

Trip to Salem and Marblehead, via Swampscott, from 10:00 a. m. to 3:00 p. m. Busses leave Hotel Bradford at 10:00 a. m. Bus fare 65c. Lobster lunch at the Adams House, Marblehead Harbor, 85c. Places of historic interest will be visited in Salem, such as the Pingree House and the House of Seven Gables.

SCIENTIFIC EXHIBITS

Booth No.

Pneumonia. The Massachusetts Department of Public Health 59, 60, 61

Advances in the Treatment of Diabetes. Dr. Elliott P. Joslin and associates 62, 63, 64

Pathogenic Fungi. Dr. Jacob H. Swartz 65

Plastic Surgery Exhibit Showing the Repair of Facial Deformities of Various Kinds. Dr. Varaztad H. Kazanjian 66, 67

Recent Studies of Essential Hypertension. Drs. Robert S. Palmer, Reginald H. Smithwick, Neil L. Crone and Richard Chute 68

Gross Placental Pathology. From the departments of obstetrics and pathology of the Harvard Medical School and the Pathological Laboratory of the Boston Lying-in Hospital. Dr. Frederick C. Irving 69

Gynecological Exhibit. From the Free Hospital for Women, Brookline. Dr. John Rock 70

Gastric Surgery. Dr. William R. Morrison 71

Medical and Surgical Aspects of Jaundice. From the Peter Bent Brigham Hospital. Drs. Robert M. Zollinger and E. Stanley Emery, Jr. 72

Cancer of the Rectum. Drs. Richard Cattell and Neil W. Swinton. *Diseases of the Stomach.* Drs. Frank H. Lahey and Samuel F. Marshall. *Esophageal Disease.* Drs. Walter B. Hoover and Harry J. Richter. *Popliteal Herniation of the Knee Joints.* Dr. G. Edmund Haggart. From the Lahey Clinic 73, 74, 75

Million-Volt X-Ray Machine. Drs. Richard Dresser and Jack Spencer 76

Cancer Exhibit. From the New England Medical Center. Drs. William M. Shedden and James E. Fish 77

Parathyroid and Bone Diseases. From the Massachusetts General Hospital. Dr. Fuller Albright 78, 79

The Treatment of Common Fractures. Dr. Gordon M. Morrison 80, 81

American Red Cross Highway First-Aid. Massachusetts Regional Committee on Fractures of the American College of Surgeons. Dr. A. William Reggio 83

MOVING PICTURES: Third Floor

Reconstruction of Crippled Hands with a Demonstration of Some End Results. Dr. William E. Browne.

Pneumonia. The Massachusetts Department of Public Health.

MEETINGS OF THE COUNCIL

The annual meeting of the Council, Wednesday, June 1, at 10:30 a. m., in the Lobby Salon. Other stated meetings in John Ware Hall, Boston Medical Library, 8 Fenway, on the first Wednesdays of October and February.

CENSORS' MEETINGS

The censors for the several districts will meet for the examination of applicants for fellowship on the first Thursdays of May and November.

The censors for the Suffolk district will examine applicants residing in that district and also applicants who are nonresidents of Massachusetts.

Applicants for fellowship should apply to the secretary of the district society of the district in which they reside (have a legal residence), at least six weeks before the date of a given examination, taking with them their diplomas.

SECRETARY'S NOTICE

All communications as to membership, especially changes of residence and address, should be sent to the Secretary, who keeps a constantly corrected official list of the fellows and their addresses.

Fellows are requested to see that their names and addresses are entered correctly in the *Annual Directory*, and when they move to notify the Secretary. The *Annual Directory* will be sent only to paid-up fellows who request it.

TREASURER'S NOTICE

Assessments, payable in advance, should be paid to the district treasurer, or, in the case of nonresidents, to the Treasurer.

Assessments were due January 1. For the convenience of fellows who have not yet paid, such assessments will be received for the Treasurer at the Registration Desk.

COMMERCIAL EXHIBITORS

	Booth No.
Alkalol Company	Table 1
Allergia Products Company	15
American Hospital Supply Company	4
Arlington Chemical Company	24
Baby's Dy-Dee Service, Inc.	Table 2
Bard-Parker Company, Inc.	17
Rudolph Beaver, Inc.	6
Ernst Bischoff Company, Inc.	49
The Borden Company	30
Burroughs Wellcome & Company, Inc.	20-21
Campbell X-Ray Corporation	29
Coca-Cola Company	45
Crosbie-Macdonald Company	18
Davies, Rose & Company, Ltd.	47
Denver Chemical Company	38
DeVilbiss Company	13
C. B. Fleet Company, Inc.	1
Form Publishing Company	28
General Electric X-Ray Corporation	22
Gerber Products Company	36
H. J. Heinz Company	51
Horlick's Malted Milk Company	31
Hynson, Westcott & Dunning	33
S. Israel's Correct Shoes	41
Jones Metabolism Equipment Company	8
Lederle Laboratories, Inc.	14
Lee De Forest Laboratories, Inc.	34
Libby, McNeill & Libby	5
Liebel-Flarsheim Co.	Table 3
M. & R. Dietetic Laboratories, Inc.	46
Macmillan Company	12
E. F. Mahady Company	19
Mead Johnson & Company	2
Medical Protective Company	37
Mellin's Food Company	16
Merck & Company, Inc.	11
C. V. Mosby Company	44
E. L. Patch Company	23
Petrolagar Laboratories, Inc.	48
Philip Morris & Company, Inc., Ltd.	40
Picker X-Ray Corporation	25-26
Sandoz Chemical Company	32
E. R. Squibb & Sons	43
Surgeons' and Physicians' Supply Company	7
Tailby-Nason Company	39
United Fruit Company	9-10
Westinghouse X-Ray Company, Inc.	50

White Laboratories 42
Winthrop Chemical Company 3
John Wyeth & Bro. ..... 27 and 35

COMMERCIAL EXHIBITS

Table No.

1. The Alkalol Company, Taunton, Massachusetts.

   Alkalol is an alkaline, saline solution. The pH test shows that the hydrogen ion concentration of Alkalol closely approximates that of the blood plasma. Alkalol is hypotonic. Alkalol does not irritate. Its use is indicated in inflammatory lesions of the eye, ear, nose, throat, bladder and vagina. It is a mucus solvent.

   Irrigol is a carefully blended powder which dissolved in recently boiled water makes an alkaline, aseptic, non-toxic and slightly astringent solution. It is a cleansing and soothing irrigant for vaginal douching, colonic flushing, rectal enemas or wherever copious irrigation is desired.

2. Baby's Dy-Dee Service, Incorporated, Brookline, Massachusetts.

   This exhibit will explain in detail the specialized equipment and the methods used in sterilizing and supplying diapers to homes in Greater Boston. Starting a fifth year this service has relieved hundreds of mothers and nurses of the daily drudgery of washing diapers and baby clothes, at the same time protecting baby's health by a scientific process impossible at home. An economical service devoted exclusively to the baby.

3. The Liebel-Flarsheim Company, Cincinnati, Ohio.

   Will exhibit short-wave generators as well as Bovie electrosurgical units. L-F equipment is the product of electromedical specialists in business over twenty years. L-F electrosurgical apparatus has for many years been regarded generally as most dependable and is now in use by leading institutions and surgeons throughout the world.

   Mr. Arnold Williams will be in charge.

Booth No.

1. The C. B. Fleet Company, Incorporated, Lynchburg, Virginia.

   Phospho-Soda (Fleet) has come to occupy a significant position wherever sodium phosphates or other laxative salines are indicated. It is a pure, stable aqueous concentrate of sodium phosphates with a history of forty-five years of manufacture.

   The C. B. Fleet Company takes this opportunity to thank the medical profession for the broad usage and increasing recognition given to their single product, Phospho-Soda (Fleet). It is offered as an eliminant, with the advantages of ease of administration, rapidity and smoothness of action, and of being a buffer solution.

   Mr. R. S. Carman, New England representative, will be in charge.

2. Mead Johnson & Company, Evansville, Indiana.

   Mead Johnson & Company are distributing this year an unusually fine souvenir item. It is not only beautiful but extraordinary because it contains no advertising. Ask for your copy of "Parergon."

   The complete display of Mead products includes two new ones.

3. Winthrop Chemical Company, Incorporated, New York City.

   Details regarding the new specifics for streptococcal, meningococcal, gonococcal and nonspecific urinary infections, Prontosil and Prontylin, will be available in the Winthrop Chemical Company's booth. Other new Winthrop preparations to be displayed: Betaxin, synthetic vitamin B_1; Drisdol, crystalline vitamin D_2; Evicyl, sedative-analgesic; Iocapral, vasodilator for hypertension and angina pectoris; Campolon, injectable liver concentrate.

4. American Hospital Supply Corporation, Chicago.

   If you are planning to visit the annual meeting of the Massachusetts Medical Society be sure to save plenty of time to see what is waiting for you at Booth 4. The American Hospital Supply Corporation is showing an unusually interesting array of brand new specialties in surgical and hospital equipment. You are sure to come away with some new ideas about oxygen therapy, intravenous solutions, blood transfusions and a lot of other important phases of your work. Mr. Watson E. Hovis will be glad to see you and show you around. Remember you have an appointment at Booth 4.

5. Libby, McNeill & Libby, Chicago.

   Baby's first solid foods should be well tolerated and easily digested. Libby's Homogenized Baby Foods are ideal for early feeding because in addition to being strained they are given an extra process . . . homogenization. We invite you to visit the Libby exhibit to sample fruit juices and to register for samples of Libby's Baby Foods.

6. Rudolph Beaver, Incorporated, Waltham, Massachusetts.

   The important things that make good surgeons' knife blades are proper heat-treating of steel, and a good sharpening process. These have been achieved in the Beaver Knife, made by Rudolph Beaver, Incorporated. Beaver blades are not wafer blades, but are strong and thick blades. The mechanism is the simplest and best. All the various blade shapes fit the different stainless steel handles. They are approved by the American College of Surgeons.

7. Surgeons' and Physicians' Supply Company, Boston.

   The Surgeons' and Physicians' Supply Company will exhibit the Comprex Short Wave Outfit, manufactured by the American Cystoscope Makers, Incorporated, and also a line of cystoscopes and catheters manufactured by them. They will also exhibit the new McKesson Pneumothor, the new Castle office light and a line of new and interesting instruments and accessories.

8. Jones Metabolism Equipment Company, New York City.

   The Jones Motor Basal is the only waterless metabolism machine on the market. These features enable us to guarantee the machine for the life of the original purchaser. No corrections or calculations for barometric pressure or room temperature are required. No calculations are required to determine the basal metabolism. An exclusive geometric device checks the accuracy of each test. Saving in cost of oxygen, soda lime and tracing sheets pays for the entire cost of the machine.

9-10. United Fruit Company, New York City.

You are cordially invited to visit the United Fruit Company's booths and sample a refreshing, banana milk shake, made before your very eyes from fresh ripe bananas mixed with cold milk and vanilla ice cream. Here also you will find the latest information, developed by research, on the food value and the varied uses of bananas.

11. Merck & Company, Incorporated, Rahway, New Jersey.

Vitamin C, an essential dietary constituent, will be the featured display at the Merck booth.

Individuals who are on a restricted diet frequently require a supplemental quantity of vitamin C. To be positive that they obtain the necessary amount and to be assured that the benefit of accurate dosage is derived, vitamin C is best prescribed in the form of Cebione. Cebione is the only vitamin C available that is Council accepted.

For information regarding Cebione, please register at the Merck booth.

12. The Macmillan Company, New York City.

Our representative will be glad to discuss with you any of our recent books in the fields of medicine and surgery. You will want to see particularly our three new Macmillan medical monographs — *Digestive Tract Pain,* by Chester M. Jones of the Massachusetts General Hospital; *Leukemia and Allied Disorders,* by Claude E. Forkner, and *Orthodiascopy,* by Chester M. Kurtz. Also a Macmillan surgical monograph published recently — *Arteriovenous Aneurysm,* by Emile Holman. You will be interested, too, in many of our new books of a more general nature, such as *Syphilis, Gonorrhea and the Public Health,* by Nels A. Nelson and Gladys L. Crain, both of the Massachusetts Department of Public Health; *Alcohol: One man's meat,* by Edward A. Strecker and Francis T. Chambers, Jr.; *The Conquest of Cholera,* by J. S. Chambers, and *The Life of Chevalier Jackson: An autobiography.*

Mr. Frank G. Hatfield will be our representative.

13. The DeVilbiss Company, Cleveland, Ohio.

The complete DeVilbiss line of atomizers, steam vaporizers and nebulizers will be on display. Specially featured in the exhibit are illustrations graphically showing the superior coverage afforded by the atomizer in the application of solutions to the nose and throat. These illustrations are based on x-ray research.

Copies of the illustrations, for reference, may be secured from Mr. E. Manning, DeVilbiss representative in charge of the display.

14. Lederle Laboratories, Incorporated, New York City.

Lederle Laboratories, Incorporated, will exhibit biological and pharmaceutical specialties of particular interest. Featured biologicals will be the newer types of pneumonia serum available and scarlet fever antitoxin. The pharmaceuticals to be emphasized will be liver extracts showing the new U.S.P. units.

15. Allergia Products Company, Newton, Massachusetts.

The exhibit of Allergia Bedding intended for the relief of sufferers from asthma, hay fever and related disorders will include a demonstration of dust produced by ordinary bedding fillers — cotton, kapok, feathers and hair — and will, by comparison, show the *dust-free* qualities of Allergia pure silk, filling material.

The exhibit will also feature full-sized, non-atopic *dust-free* Allergia Pillows and a model of the *dust-free* Allergia Mattress.

We shall invite physicians to avail themselves of free vials of an extract made from Allergia Filling Material for their use in making scratch tests.

Of unusual interest, we believe, is our demonstration, which shows kapok (erroneously called silk floss) to be fully as prolific a dust producer as any other bedding filler, yet which for many years has been mistakenly recommended to dust-sensitive patients.

Included with our showing of *dust-free* Allergia bedding is the Kantwet Crib Mattress, which not only offers a *wetproof non-rubberized* infant bedding piece, but also a *dustproof* protection to sensitive nasal membranes.

16. Mellin's Food Company, Boston.

Fitting the food to the baby, the correct approach to bottle feeding, is the underlying principle of the easily workable method that employs Mellin's Food as the milk modifier. A discussion of this matter with physicians is sincerely desired, and your visit to the Mellin's Food Company's exhibit will be greatly appreciated.

17. Bard-Parker Company, Incorporated, Danbury, Connecticut.

Among the Bard-Parker products exhibited are rib-back blades; renewable-edge scissors; stainless steel, Lahey, lock forceps; Formaldehyde Germicide; containers for rustproof sterilization of surgical instruments; and a hematological case for obtaining blood samples at the bedside.

18. Crosbie-Macdonald, Boston.

Insurance service for members of the Massachusetts Medical Society.

Ask us to explain our plan for your own old age. Mr. Crosbie will be in charge.

19. E. F. Mahady Company, Boston.

The E. F. Mahady Company exhibit will include recent developments of the Burdick Company in the field of physical therapy; a display of Cutter Intravenous Solutions in Safteflask containers, and other items of interest to the medical profession.

20-21. Burroughs Wellcome & Company, Incorporated, New York City.

The Burroughs Wellcome & Company exhibit presents a wide range of new and important advances in pharmacological and chemical research.

22. General Electric X-Ray Corporation, Boston.

It is the policy of the General Electric X-Ray Corporation to try, at each meeting of the Massachusetts Medical Society, to have an interesting exhibit for the visiting doctor. All we ask is that he pay us a visit and meet our representatives who are very helpful in the matter of x-ray and physical therapy problems.

23. The E. L. Patch Company, Stoneham, Massachusetts.

The Patch Company representatives will be on hand throughout the convention ready to greet physicians and to be of service in any way. The Patch Com-

pany exhibit will include Patch's Cod Liver Oil, as well as the other ethical medicinal specialties made in the Patch Laboratory.

24. The Arlington Chemical Company, Yonkers, New York.

The Arlington Chemical Company will again exhibit its products at the annual meeting of the Massachusetts Medical Society. It will again feature its biological and pharmaceutical products. The company is offering a new diagnostic protein outfit that has just been released consisting of eighty of the most common causative factors in allergic conditions. The physician in charge of the booth will be happy to discuss any allergic problem.

25-26. Picker X-Ray Corporation, New York City.

The Waite Series "200" Radiographic and Fluoroscopic X-Ray Apparatus will be displayed. This is the first completely self-contained, oil-immersed valve tube equipment to be presented to the radiographic profession. The new Waite Series "200" delivers 200 ma. from over as well as under the table, and is instantaneously available for radiography or fluoroscopy either in the horizontal or vertical position. It is self-contained by virtue of the fact that no overhead system is necessary as a four-valve, portable, hermetically sealed transformer is standard with the apparatus.

Other features of our display will be certain accessories, such as Keraphen (the standard gall-bladder dye), Basolac (for gastrointestinal examination), Picker lead-rubber gloves and Picker fluoroscopic goggles.

As one of the largest exclusive manufacturers of x-ray apparatus, we are very happy to appear at the annual meeting of the Massachusetts Medical Society in the interest of x-ray therapy and radiographic advancement.

27 and 35. John Wyeth and Brother, Incorporated, Philadelphia.

John Wyeth and Brother, Incorporated, will exhibit a number of their pharmaceutical specialties, including Silver Picrate, Council-accepted treatment for *Trichomonas vaginalis* vaginitis; Kaomagma, the intestinal adsorbent; Amphojel, Wyeth's alumina gel (antacid); and Ergoklonin, Wyeth's preparation of the alkaloid ergonovine, the specific oxytocic principle of ergot.

One of the points of interest at the booth will be a glass model of *Trichomonas vaginalis,* which has been exhibited at several medical meetings throughout the country. This model stands approximately ten inches tall, is of sufficient size in all the delicate inner structures so that this protozoon may be studied at leisure.

28. Form Publishing Company, New York City.

The Collens System of Diet Writing is a loose-leaf system containing the Collens Diet Calculator, an obesity chart, a diet formulary and one hundred menu prescriptions.

Book reviews have uniformly acclaimed it as the simplest, most ingenious and most practical contribution to the problem of diet writing for the physician. The calculator can be used for any diet requiring a quantitative consideration of carbohydrate, protein and fat, such as in diabetes, nephritis, nephrosis and epilepsy. The menu sheets are most practical for the patient.

See this ingenious system in the Form Publishing Company booth.

29. Campbell X-Ray Corporation, Boston.

We shall exhibit the latest development in shockproof x-ray apparatus and accessories.

30. The Borden Company, New York City.

New, yet already remarkably successful in infant feeding, Biolac is exhibited for the first time in Massachusetts at the Borden booth. Competent representatives will gladly provide specific, helpful information on the unique virtues of this modern, *complete* infant food.

Also exhibited are other Borden products, notably Dryco, Klim, Beta Lactose, Merrell-Soule Products and Borden's Irradiated Evaporated Milks.

31. Horlick's Malted Milk Corporation, Racine, Wisconsin.

Nourishing, digestible, appetizing — these are three outstanding qualities for which Horlick's Malted Milk is famous, in either the powdered or tablet form. Visit Booth 31. You will be interested in the many dietary uses — from infant feeding to old age; note especially the convenience of the tablets for interval feeding in ulcer diets.

32. Sandoz Chemical Works, Incorporated, New York City.

We will feature Digilanid, a chemically pure and constant preparation of the three isomorphic crystalline initial glucosides of *Digitalis lanata,* designated as lanatosids A, B and C; Digilanid tablets and liquid are available for oral dosage, suppositories for rectal administration, and stable ampule solutions for intramuscular and intravenous injection. Among other products displayed will be Bellergal, a pharmacodynamically balanced association of active neurotropic drugs, for the treatment of functional nervous disorders, neuroses and imbalances of the vegetative nervous system; Gynergen, the original and only product of the specific ergot alkaloid ergotamine, in pure and stable form for dependable uterine hemostasis and the non-narcotic relief of migraine; Calglucon, the pioneer brand of calcium gluconate in chocolate-flavored tablets, effervescent tablets and granules for palatable oral calcium medication, as well as 10 and 20 per cent, stable, sterile ampule preparations of Neo-Calglucon for intensive parenteral calcium therapy; Scillaren, a brand of pure squill glucosides, a reliable cardiodiuretic.

33. Hynson, Westcott & Dunning, Incorporated, Baltimore.

We shall have an exhibit featuring Mercurochrome and various pharmaceutical specialties of our manufacture. There will also be a display of some of the diagnostic apparatus and ampule solutions which have been developed in co-operation with physicians. As usual, competent representatives of the company will be in attendance to demonstrate the products and to answer questions. Literature and samples will be available to physicians who are not already familiar with products exhibited or who wish to obtain a trial supply.

34. Lee De Forest Laboratories, represented by the New England X-Ray Corporation, Boston.

Lee De Forest Laboratories are manufacturers and distributors of radio-frequency apparatus and feel that

it is in their province to be principally concerned in the continued and persistent efforts to develop, for this new form of therapy and surgery, apparatus which carries a guarantee that can be relied upon and also a license under existing valid patents. After many months of exhaustive research in the field of radio-electronics, Lee De Forest now offers to the profession the 1937-1938 Dynatherms. Mr. George Laben and Mr. Dean Allen will be in charge of the exhibit.

36. Gerber Products Company, Fremont, Michigan.

Gerber invites you to inspect its strained foods, which will be on display. Two kinds of literature, some for professional use and some for distribution to mothers or adult patients on therapeutic diets, are both available for your examination and will be sent to you on request.

37. The Medical Protective Company, Wheaton, Illinois.

The Medical Protective Company's representative, thoroughly trained in professional liability underwriting, invites you to visit Booth 37. He is entirely familiar with the principles of the reciprocal rights and duties of a doctor and patient and with the circumstances peculiar to that relation. He will be glad to explain how his company meets the exacting requirements of adequate liability protection, which are peculiar to the professional liability field.

38. The Denver Chemical Manufacturing Company, New York City.

In Booth 38, Antiphlogistine will be exhibited. This product, now in its forty-fifth year, is employed by physicians in all parts of the world. It is a really universal product. Galatest will also be exhibited; this is a new microreagent for the instantaneous detection of urine sugar. Physicians are invited to visit the exhibit.

39. Tailby-Nason Company, Boston.

The Giant Cod and photographs of the Lofoten Fisheries in Norway will be an interesting part of the exhibit of Nason's Palatable Cod Liver Oil.

Mr. Robert Nason will be in charge.

40. Philip Morris & Company, Limited, Incorporated, New York City.

Philip Morris & Company, Limited, Incorporated, will demonstrate the method by which it was found that Philip Morris cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes.

41. S. Israel's Correct Shoes, Incorporated, Boston.

The value of S. Israel's Correct Shoes is recognized by the medical profession at large, and they are prescribed as a mechanical medicant in assisting the doctor in the banishment of the various bodily disturbances that are largely due to tarsus misplacement from faulty and incorrect footgear. These shoes are constructed of the finest materials obtainable on lasts that were developed by scientific measurements from feet in their individual classes and their various shapes and contours. They are assembled by expert craftsmen of a well-known shoe manufacturer, who is equipped to make shoes of this nature, and who has had fifty-five years' experience in making high-grade footwear.

42. White Laboratories, Incorporated, Newark, New Jersey.

Information covering the cod-liver oil field, together with clinical and biochemical evidence of the efficacy of the company's liquid, tablet and capsule forms of cod-liver oil, will be presented by White Laboratories, Incorporated. Informed representatives and descriptive booklets, reprints and excerpts from the literature will further point out the contributions of White Laboratories, Incorporated, to the field of vitamins.

43. E. R. Squibb & Sons, New York City.

Physicians attending the Massachusetts Medical Society meeting are cordially invited to visit the Squibb Exhibit in Booth 43.

The complete line of Squibb glandular, vitamin, arsenical and biological products and specialties, as well as a number of interesting new items, will be featured.

Well-informed Squibb representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

44. The C. V. Mosby Company, St. Louis.

Among the many books to be displayed by the C. V. Mosby Company are: the second edition of Watson's *Hernia,* Rea's *Neuro-ophthalmology,* the fifth edition of Porter and Carter's *Management of the Sick Infant,* the fifth edition of Crossen's *Operative Gynecology,* and the sixth edition of Clendening's *Method of Treatment.* These recent releases will be supplemented by approximately one hundred seventy-five other texts.

45. The Coca-Cola Company, Atlanta, Georgia.

The Coca-Cola Company in serving complimentary Coca-Cola at its booth hopes that "The Pause That Refreshes" will be enjoyed by guests and visitors of the meeting.

46. M & R Dietetic Laboratories, Incorporated, Columbus, Ohio.

M & R Dietetic Laboratories, Incorporated, will display Similac, a completely modified milk for infants deprived of breast feeding. Representatives will gladly explain its merit and suggested application.

47. Davies, Rose & Company, Limited, Boston.

The preparations that this firm is exhibiting have a world-wide reputation. Physiologic or chemical tests are made to insure their standardization. Clinical experience vouches for their dependability.

48. Petrolagar Laboratories, Incorporated, Chicago.

Physicians are cordially invited to visit Booth 48 where Petrolagar Laboratories, Incorporated, will be represented by Messrs. Larson and Schneider.

Petrolagar is an emulsion of pure mineral oil (65 per cent by volume) and agar-agar, accepted by the Council on Pharmacy and Chemistry of the American Medical Association for the specialized treatment of constipation. Scientific drawings and literature on the subject of constipation will be available in addition to samples of the five types of Petrolagar.

49. Ernst Bischoff Company, Incorporated, Ivoryton, Connecticut.

In our exhibit we will feature: Activin, the first American-produced, shockless, foreign protein for non-

specific therapy; Alpha-Lobelin, a direct stimulant to the respiratory tract and the resuscitant indicated in all forms of respiratory failure or depression; Diatussin, the original drop-nose cough remedy with a thirty-five-year record of efficacy; Silvogon, an absolutely stainless silver antiseptic, an effective gonocide; Styptysate, a vegetable hemostatic for the control of all seeping hemorrhages; Viscysate, a dialysate of viscum album which lowers blood pressure and relieves the accompanying symptoms.

50. Westinghouse X-Ray Company, Incorporated, Long Island City, New York.

The latest model Diadex Portable shown by the Westinghouse X-Ray Company is an excellent example of the power and flexibility which modern engineering has built into today's compact, shock-proof x-ray equipment.

We also have on display the new Westinghouse Bactericidal Lamp.

51. H. J. Heinz Company, Pittsburgh, Pennsylvania.

In order that you may see the natural fresh color and uniform consistence of Heinz Strained Foods our display presents in an attractive manner all twelve varieties. Naturally, you have some questions as to their preparation and uses. We therefore invite you to let our representative serve you, in this respect.

We shall be glad to send you a copy of the fifth edition of our "Nutritional Chart" upon registration at our exhibit.

ROUND TABLE CONFERENCE ON HIGHWAY FIRST AID

On Tuesday, May 31, at the time of the annual meeting of the Massachusetts Medical Society, there will be a meeting of the members of the Massachusetts Fracture Committee of the New England Regional Fracture Committee of the American College of Surgeons at the Hotel Bradford in the Lounge Ballroom from 3 to 5 p. m.

This Round Table Conference is for the purpose of hearing reports from various members as to the Highway First-Aid Stations of the Red Cross in their districts and as to what has been accomplished, to date, as regards first-aid equipment of ambulances and first-aid instruction of ambulance drivers, local police, and so forth.

There are now fifty-nine members on the Massachusetts committee, which was formed in November, 1936. Further organization of the group will be discussed in order that this committee may function more adequately and thus succeed in accomplishing the end for which it was formed.

There will be a few very short talks and the remainder of the session will be taken up by open discussion in which any member with constructive ideas is urged to take part.

A. William Reggio, M.D., *Chairman,*
Massachusetts Fracture Committee.

NEW ENGLAND ALUMNI — LUNCHEON MEETING

Baltimore Medical College, College of Physicians and Surgeons, University of Maryland Medical School

The annual luncheon meeting of the New England alumni will be held at the Hotel Statler, Wednesday, June 1, at 12:30 p. m.

Charles E. Gill, M.D., *Secretary.*

MASSACHUSETTS MEDICO-LEGAL SOCIETY

There will be a meeting of the Massachusetts Medico-Legal Society on Wednesday afternoon, June 1, in the Oval Room of the Hotel Bradford, at 2:30.

PROGRAM

Business Meeting.

Brief Presentation of Occupational Hygiene. Dr. Arthur B. Emmons, 2nd.

Medico-Legal Aspects of Diabetes and Hyperinsulinism. Dr. Shields Warren.

Dr. Timothy Leary, moderator, will receive and answer questions concerning puzzling points which occur to every medical examiner, and will also interpret the laws.

Nathaniel Pope Breed, M.D.,
President,
Myrtelle M. Canavan, M.D.,
Secretary-Treasurer.

HARVARD MEDICAL ALUMNI ASSOCIATION

The luncheon and annual meeting of the Harvard Medical Alumni Association will be held at the Hotel Bradford, on Tuesday, May 31, at 12:30 p. m. The meeting preceding the luncheon will be brief. Dean Burwell will speak.

Tickets for the luncheon will be on sale at the Registration Desk, the charge being $1.00.

TUFTS MEDICAL ALUMNI LUNCHEON

A buffet luncheon for the alumni and friends of Tufts College Medical School will be held on Tuesday, May 31, at 12:15 p. m. at the Hotel Bradford.

Those planning to attend should communicate with the secretary, Dr. Robert T. Phillips, 386 Commonwealth Avenue, Boston.

OBITUARY AND RESOLUTIONS

FREDERIC JAY COTTON

1869-1938

The Massachusetts Medical Society has recently lost one of its most distinguished members, Dr. Frederic Jay Cotton.

Born in Prescott, Wisconsin, son of Joseph Potter and Isabella Cole Cotton, Dr. Cotton was educated at Harvard College (A.B., 1890, and A.M., 1894) and Harvard Medical School (M.D., 1894). He became a surgical intern at the Massachusetts General Hospital and then studied in Vienna and visited various European clinics for two years.

He was next appointed a visiting surgeon at the Boston City Hospital. Dr. Cotton advanced through various grades of rank, eventually becoming senior surgeon-in-chief and chairman of the Surgical Staff, and subsequently, consulting surgeon, in which position he served faithfully and well for many years. At one time he was surgeon-in-chief at the Beth Israel Hospital and was a teacher of surgery at both Harvard Medical School and Tufts College Medical School. For some time

he was a visiting surgeon at the Children's Hospital.

Dr. Cotton practiced general surgery in his early years but later became interested in fractures, bone and joint surgery, and industrial and plastic surgery. His many valuable contributions to medical literature in these fields of surgery are a monument to his skill and ingenuity. His textbook on *Fractures and Dislocations* has been used throughout the country as a standard by countless students and members of the profession; he drew practically all the illustrations in this book. His own vast experience and progressive views derived from an extensive practice were ably expressed in his writings.

He established the Bone and Joint Service at the Boston City Hospital, becoming the first surgeon-in-chief of the Sixth Surgical Service. At this time he limited his operating to bone and joint cases exclusively and for many years personally followed up his patients in the Outpatient Department.

Doctor Cotton was particularly interested in hip fractures, and he was one of the first surgeons to abduct the leg and artificially impact the broken hip. Cotton's fracture of the ankle was ably described by him many years ago, and his classification of ankle fractures has been widely accepted. Many years ago his advanced ideas permitted him to evacuate infected joints and suture them without drainage, which was an unheard-of procedure at that time.

He originated many novel methods of operating, and was one of the first surgeons in the country to recognize the disabling character of fractures of the wrist and of the os calcis and to devise methods for their correction. Acute flexion position for elbow injuries and internal fixation for fractures were early advocated by him. He was a pioneer in creating modern gas-oxygen machines for anesthesia, in conjunction with Dr. Boothby. The modern Gwathmey and Foregger machines are patterned after Dr. Cotton's ideas.

Doctor Cotton served his country with distinction in the Spanish War and in the World War, being commissioned a major in the Medical Corps, United States Army. He was appointed surgeon-in-chief of the Walter Reed Hospital and subsequently acted in the same capacity in Boston at the Elks Reconstruction Hospital. He was also an assistant and a valued adviser to the Surgeon-General.

As a founder and member of the Board of Regents of the American College of Surgeons and of the American Board of Surgery, Doctor Cotton exerted a great amount of influence in raising the standards of surgery and of hospitals in America. He was also a senior member of the American Surgical Association and of the American Orthopedic Association.

His versatility was shown by his excellent work in sculpture, etching, and water-color and oil painting. He was a charter member of the Boston Physicians' Art Society and arranged their annual exhibits.

His widow, Jane Baldwin Cotton, and a daughter survive him, as well as two grandchildren.

Doctor Cotton endeared himself to his countless patients and associates because of his unfailing good nature and his kindly advice and generous help to those in trouble. He was always willing to lend a helping hand and to give invaluable advice to the younger generation.

Of powerful build, impressive appearance and commanding personality, Doctor Cotton combined many rare qualities which resulted in making him a skillful and successful surgeon of national reputation.

W. R. M.

RESOLUTIONS ON THE DEATH OF BENJAMIN WHITE

WHEREAS, Dr. Benjamin White was an active member of the Association for thirteen years (1921 to 1934); and

WHEREAS, in recognition of his services, he was made an honorary member of this Association when ill-health necessitated limitation of his activities; and

WHEREAS, his industry and zeal in promoting the public health of Massachusetts not only by his direction of the preparation of biologic products but also through his interest in the extension of programs for active immunization against smallpox and against diphtheria and through the initiation of a plan for the study of pneumonia and its control led to strengthening and improving public-health work in this Commonwealth; therefore be it

RESOLVED, by this Association, assembled in regular meeting, that it records in its minutes its sense of regret in the loss to the Association and to the advancement of the public health occasioned by the death of its distinguished member; and be it further

RESOLVED, that copies of this resolution be transmitted to the appropriate journals for publication, and to his widow, to whom the Association extends its deep sympathy.

Unanimously adopted by a rising vote at a meeting of the Massachusetts Public Health Association held April 27, 1938.

G. DONALD BUCKNER,
Secretary.

MASSACHUSETTS MEDICAL SOCIETY

SECTION OF OBSTETRICS AND GYNECOLOGY

M. Fletcher Eades, M.D., *Secretary*
19 Bay State Road
Boston

Case History No. 72. Bleeding in the Twenty-Eighth Week of Pregnancy

Mrs. J. W., twenty-four years old, in the twenty-eighth week of her first pregnancy, passed, without any pain, what she estimated as a quarter of a cup of bright-red blood and a small clot. She was sent at once to the hospital.

Her family history was unimportant. In childhood, she had had a hemolytic streptococcus throat. In 1927 her tonsils and adenoids were removed. In July, 1935, a dilatation and curettage, plastic on the cervix, suspension and appendectomy were performed. Catamenia began at fourteen, were regular every twenty-eight days, and lasted four or five days. She had had severe cramps until the operation in 1935. Her last period began October 23, 1935, making her due for delivery July 30, 1936.

She was first seen December 17, at which time the lungs were clear, there were no rales, the heart showed no enlargement and there were no murmurs. Her blood pressure was 122 systolic, 70 diastolic. The urine contained no albumin or sugar. Abdominal examination was negative except for a median scar below the umbilicus. Vaginal examination showed a marital introitus; the cervix was soft and smooth, and the uterus in normal position, definitely a little large and globular. The vaults were free, and there was no erosion of the cervix. Her pelvic measurements were 30-24-20; the symphysis and arch were normal, and the outlet ample. She was seen routinely during her pregnancy which progressed satisfactorily and normally until the above-mentioned bleeding on May 10.

On arrival at the hospital her blood pressure was 118 systolic, 66 diastolic. The urine specimen contained no albumin or sugar. The fundus measured 27 cm. above the symphysis. The fetal heart was heard in the right lower quadrant. By palpation the vertex was presenting above the brim. Her red-cell count was 3,650,000, white-cell count 11,200, and the hemoglobin 69 per cent. The patient's blood was typed and found to be incompatible with that of her husband. She was not flowing on admission to the hospital, and no vaginal examination was made. The diagnosis lay between separation of a low-attached placenta, slight separation of a normally attached placenta, or some type of placenta previa. As the baby had a less than 50 per cent chance of survival if delivered and the patient was able to stay in the hospital until the baby was viable, it was decided to follow this course. There was no flowing after the time of her admission.

On June 11 a cystogram was taken after the injection of 40 cc. of a 3 per cent solution of sodium iodide into the bladder. The x-ray plate showed the fetus presenting by the face, probably a posterior face; the distance between the bladder and the head was 18 mm. On the right side and in the central portion of the bladder outline there were two levels of density indicating that portions of the center and right side of this area were occupied by an unusual soft-tissue mass. An x-ray diagnosis was made of partial placenta previa on the left with brow presentation. On June 27 the patient was examined vaginally. Everything was in readiness for the insertion of a bag or a cesarean section. Vaginal examination showed that the head was down against the cervix and that apparently nothing was in front of it. The cervix was short and easily admitted one finger. A finger was passed through the cervix and came directly against the vertex. The finger was swept around for a distance of 5 cm. above the internal os and no placenta was felt. This examination ruled out any type of placenta previa. As a result of this examination she started in labor very soon. All through that day she had definite contractions lasting from three to five minutes, but there was no show, and not much discomfort. At 4:00 p. m. a rectal examination showed the cervix to be short, about one and a half fingers dilated, and the head down against it. The membranes ruptured spontaneously at 9:00 p. m., after which the pains became harder and occurred every three minutes. She had a normal labor which terminated at 1:14 the next morning with the delivery of a male child, weighing 6 lb., 7 oz., in excellent condition. There was a small median tear which was repaired. The placenta separated and was expressed intact with membranes complete. The placenta showed evidence of an old partial separation; the membranes had ruptured 15 cm. from the edge of the placenta. There was no unusual bleeding, and both mother and baby were in excellent condition.

Comment. The conservative handling of cases that bleed at a period when viability is very questionable and when the bleeding entirely ceases is well illustrated by this particular case. If an examination had been made and the finger put through the cervix for the purpose of making

A series of selected case histories by members of the section will be published weekly.
Comments and questions by subscribers are solicited and will be discussed by members of the section.

an absolutely definite diagnosis and if a central placenta previa had been present, bleeding might have been so great that immediate delivery would have been indicated; if such were the case, the chance of obtaining a living child would have been small. If this patient had bled again while she was in the hospital, then an examination would have been imperative so that an exact diagnosis, upon which intelligent treatment might be instituted, could be made. A patient at this stage, who bleeds painlessly, may bleed from the separation of a normally situated placenta, a low-attached placenta or placenta previa of any one of the three types. Cystograms have been used for the last few years for the purpose of making a diagnosis of placenta previa. In this instance the x-ray diagnosis was definitely wrong. This patient was treated ideally and a perfect result was obtained.

THE PRE-SCHOOL CHILD

In these modern times it is a little difficult to define exactly the pre-school stage of life, when so many children arrive at the nursery-school door practically dragging their cradles with them. The social, if not the legal, term of infancy is construed as occupying the first two years of life; with children of three seeking and gaining admission to the nursery schools in rapidly increasing numbers, it would appear that the period of life concerning which we are to talk frequently consists of but a year in the life of the individual.

It may be just as well, however, since this is the period of the child's life that has long been termed "The Neglected Age," that it should be made as short as possible. The very fact that it is being shortened shows that we have become conscious of its needs.

During the infancy of the child its most urgent demands are physical ones; it protests when it is uncomfortable, hungry or in pain; it makes its wants felt and they are attended to. We are in danger of forgetting the fact that an infant has more needs than a stomach to be filled and a diaper to be changed; that its mind requires, from its earliest months, lessons in adapting itself to the environment in which the individual must live.

When pre-school days are reached; when the quadruped infant becomes the biped runabout child, the necessity of training him forces itself upon us. Originally in danger of regarding the infant as a body without a mind, we now run the risk of regarding the pre-school child as a mind without a body — an equally serious error.

Actually, at every age of childhood our obligation as parents, as teachers, as nurses or as physicians is to try and maintain a just balance between those mutually reciprocal parts of the human entity — the mind and the body.

Various necessities present themselves to us in this period of rapid development of the child — the period from two to five or six, to accept the more orthodox school age. We are in danger now of neglecting the diet, which had been so carefully overseen during the child's infancy, not only in allowing unsuitable foods, but in failing to include principles necessary for healthy growth. We are a nation of carbohydrate eaters, and our appetite for this class of foods — the starches and sugars — makes us liable to neglect the foods that contain in greatest abundance the necessary minerals and vitamins, that is, the fruits, the vegetables, milk and eggs.

A minimum basic diet for a growing child consists of at least a pint of milk a day, one or more cooked vegetables, a raw fruit or vegetable or both, eight ounces of some fruit juice, an egg or meat or fish, and some source of vitamin D, such as cod liver oil, at least during the winter and spring months. These basic requirements having been fulfilled, other foods such as the cereals, the breads, desserts, and so forth, may be used to satisfy the appetite and make up the energy requirements of the body.

I mentioned at least a pint of milk a day as a fundamental part of our basic diet. Children with normal, healthy appetites may drink as much as a quart, but I consider that the slogan "A quart of milk a day" has done considerable harm. Many children cannot take this amount of milk in a day without seriously interfering with their appetites for the other essential parts of the diet, and loss of appetite constitutes one of the major problems in dealing with many children of today.

This appetite problem must be met by reducing the quantity of milk, if milk is a food of choice; by stopping all eating between meals; by giving a well-balanced diet in small servings, but as attractively as possible; by limiting the time allowed for eating and by letting the child see plainly that his or her eating habits do not cause anyone any concern. This method of approach, however, is not tried for a day, a week or a month: it is an attitude that must be maintained permanently.

There is considerable evidence available that a sound basic diet is also a heavy contributor to the campaign for sound, healthy teeth; something in which civilized races are sadly lacking. Watch your child's six-year molars, the first of the permanent teeth that come in near the end of or soon after our pre-school period. Those cavities to which they are so susceptible may be partly the result of a lack of orange juice, of milk or of cod liver oil during the years before their appearance.

Do you keep a dish of candy on the sideboard or the living-room table? Perhaps this is responsible for that dental decay of his that you deplore so much, or have not even noticed, if toothache has not yet set in. Candy is permissible, yes; but only of very simple types and only after a meal that has been satisfactorily eaten.

The question of filling the cavities that have occurred in the temporary teeth is sometimes debated. Certainly there can be no reason for neglecting teeth that must serve a child during the ten or twelve years when his jaws are taking on their final shape and his life's health is in the making.

Many children will have been vaccinated against smallpox and immunized against diphtheria during their first year of life, and that is the best age in which to have those immunizations performed. If they were neglected during infancy, however, they should be performed early in the pre-school years, for universal immunization is a small price to pay for the practical banishment of two dread diseases. Immunization against other diseases such as whooping cough and scarlet fever may be attempted in individual instances, but is not yet being universally applied.

Those acute infectious diseases for which we have no effective immunization must, however, be guarded against by protecting our children, so far as possible, from exposure to them. The common cold in itself causes a great-

A "Green Lights to Health" broadcast given by Dr. Joseph Garland on Wednesday, May 4, and sponsored by the Public Education Committee of the Massachusetts Medical Society and the Massachusetts Department of Public Health.

er loss of time from useful activity than does any other disease, and in childhood, particularly, may be the apparent forerunner of many of the more serious illnesses. While the activity of the pre-school child may not be considered as useful from the economic standpoint, we nevertheless do not like to see him deprived of it for even a short time because of preventable sickness.

While we are on the subject of acute infections, it is well to bear in mind that removal of the tonsils, particularly during the early years of life, does not open the gateway to perpetual health, nor does it necessarily prevent the further occurrence of common colds, swollen glands or fallen arches. The removal of tonsils should be considered as a major operation, to be accepted only on the merits of the individual case as the result of a decision carefully rendered.

Aside from the acute infections, one of the major enemies of early childhood is chronic fatigue, and as a result of chronic fatigue we are very likely to find poor body mechanics. The sway-backed, soft-muscled, flat-chested, round-shouldered child with protuberant abdomen and flat feet is almost surely a victim of chronic fatigue, and his faulty posture may be a contributory factor to his fatigue.

We live in an age of speed, pressure, anxiety and almost constant emotional stimulation, and our children need protection from it. Instead we allow them to abandon their daily rests at too early an age, to stay up too late at night and to seek overstimulating forms of amusement. The result is chronic fatigue and emotional instability, both of which seriously interfere with our efforts to cultivate their bodies, train their minds and help them to establish self-control.

I would recall to your minds the first two provisions of the Children's Charter, adopted as a bill of rights for the child at the White House Conference of 1930:

1. For every child spiritual and moral training to help him stand firm under the pressure of life.
2. For every child understanding and the guarding of his personality as his most precious right.

There is no assurance in these troublous days that we can hand down to our children very much in the way of tangible securities or concrete goods. We can, however, give them certain things that cannot easily be taken from them — good habits, self-reliance, self-respect, a security in right thinking and right living that in later life may help them to stand firm while their world seems to be falling about them. We would have them believe, like the old character in Hugh Walpole's *Fortitude*, that it isn't life that counts; it's the courage you bring to it.

To do these things we must give them homes in which they can have a sense of spiritual as well as of economic security; we must teach them emotional stability by example rather than by precept; we must recognize the fact that social adjustment begins not in the school but in the cradle.

* * *

Q. How much rest does a child of four require?

A. The child of four years requires about twelve hours of sleep, or a little more, which means more than this length of time in bed. An interesting study made a few years ago by the University of Minnesota Institute of Child Welfare showed that more sleep is taken in the winter than in the summer, and that country children take less than city children. The length of night sleep from the age of two years through the age of seven remains practically stationary at eleven hours, so that the diminution in total sleep beyond the age of two is accounted for largely by the shortening and gradual abandonment of the nap. However, a midday rest, even if no sleep is taken, should be continued at least through the pre-school years.

Q. On what basis should a decision for or against the removal of tonsils be made?

A. This is frequently a difficult question to decide, and yet it is one that comes up at least once in the lives of most children. I am hopeful that we are becoming increasingly more conservative in recommending the operation. Very little help can be gained by actually inspecting the tonsils. What is of greatest importance is the past health record of the child, particularly as regards frequent attacks of sore throat or tonsillitis, frequent ear abscesses, or infection of the glands in the neck. Head colds cannot be prevented by tonsillectomy, but to a certain degree their complications may be. Thus, although children without tonsils may still have ear abscesses, sinus infections and gland infections, their chances of having them are somewhat reduced after tonsillectomy, provided that they had previously been particularly susceptible to them.

Favorable results from tonsil and adenoid removal seem to last about three years; after that period of time the benefits tend to disappear. Even where the operation seems to be necessary, it is well to delay it, if possible, until after the age of five or six.

Q. Do you approve of nursery schools?

A. Yes, on the whole I can say that I do approve of nursery schools, although the answer deserves to be guarded. Three factors are involved; the school, the child and the home. Enthusiasm alone cannot make a good school. Combined with it must be an understanding of the obligations involved and the duties to be performed. Such a school can be of service to a child who has no natural playmates or whose home environment needs to be supplemented. Naturally, no school can replace the home.

DEATHS

McMURRAY — Francis M. McMurray, M.D., of 101 Prichard Street, Fitchburg, died at his home, May 8. He was in his sixty-sixth year.

Born in Merrimack, he attended the Fitchburg High School, graduated from Brown University and received his degree from the New York University College of Medicine in 1899.

Before beginning practice in Fitchburg, in 1899, he was a reporter for the *Fitchburg Mail* and the *Fitchburg Sentinel*. For several years he was city physician and at the close of the last century was clerk of the city's common council. Dr. McMurray was president of the staff at the Burbank Hospital for many years and had been chief anesthetist at the hospital for several years. He was a fellow of the American Medical Association and the Massachusetts Medical Society, past president of the Worcester North District Medical Society and its secretary at the time of his death.

His widow, a daughter and a brother survive him.

WHEELER — Charles D. Wheeler, M.D., of Worcester, died May 7. He was in his seventy-third year.

Born in Worcester he prepared for college under private tutors in Marblehead, and graduated from Williams College and from the Harvard Medical School. In 1893 he began practice in Worcester. In 1906 he became associated with the State Mutual Life Assurance Company as medical examiner and rose to the position of medical director, a position he held at the time of his death. He was at one time consulting surgeon at Worcester City Hospital, and served on the Federal Advisory Board during the World War.

Dr. Wheeler was a fellow of the American Medical As-

sociation, the Massachusetts Medical Society, the Worcester District Medical Society and the American College of Surgeons. He held memberships in the Worcester Club, the Worcester Chamber of Commerce and the Williams Club of New York City and was also a member of the Masonic Order.

His widow, a daughter, a son and a granddaughter survive him.

WINN — CHARLES H. WINN, M.D., of 808 Commonwealth Avenue, Newton Centre, died May 10. He was in his seventy-fifth year.

A native of Boston, he attended the Boston public schools, later graduating from Boston College and receiving his degree from the Harvard Medical School in 1888.

The first medical examiner ever appointed by the Aetna Life Insurance Company, he served fifteen years in that capacity. He was also medical examiner for the Boston Elevated Company. For ten years he was visiting surgeon at St. Elizabeth's Hospital and was appointed by President Cleveland to the United States Board of Examining Surgeons for Pensions.

Dr. Winn was a member of the American Medical Association and a fellow of the Massachusetts Medical Society.

Two daughters, a son and a sister survive him.

YOUNG — WILLIAM B. YOUNG, M.D., of 86 Fresh Pond Parkway, Cambridge, died May 11. He was in his fiftieth year.

Born in Rockland, he attended the Rockland High School, graduated from Harvard University and received his degree from the Harvard Medical School in 1918.

Dr. Young was a former resident surgeon at the Haymarket and East Boston relief stations. During the World War he was a captain in the medical corps and later became resident surgeon of the Boston City Hospital and visiting surgeon of the Boston Lying-in Hospital. He subsequently joined the staffs of the Cambridge Hospital and Cambridge City Hospital, which posts he held at the time of his death. For many years he was an instructor in the Department of Obstetrics, Harvard Medical School.

A fellow of the Massachusetts Medical Society, he was also a member of the American Medical Association.

His widow, a daughter, four brothers and two sisters survive him.

MISCELLANY

DIFFICULTIES IN DEALING WITH THE TUBERCULOSIS PROBLEM

DIFFICULTIES ENCOUNTERED IN INDUSTRY

According to Lane (Tubercle *19:* 97-104, 1937), enlightened industry nowadays realizes that it must carry a certain number of subnormal individuals. In the long run this is sound economic policy, for industry cannot afford to lose trained employees or to breed psychological unrest of workers caused by the knowledge that loss of employment will follow serious or prolonged illness. Yet the employment of workers who have tuberculosis, or have recovered from the disease, is an exceedingly awkward problem, for tuberculosis is insidious and infectious and leaves its sufferers incapable of normal physical effort for long periods.

Economic difficulties experienced by the tuberculous wage earner are serious. They are partially relieved by continuing part wages. Treatment in the sanatorium is rendered easier and more effective if the worker is relieved of immediate worry and is given hope for the future. It reduces the temptation to return to work too soon.

Environmental difficulties are particularly acute in working-class areas. The problems of slums, overcrowding and undernourishment are being solved by the slow social evolution now going on.

Difficulties arising out of the patient's own attitude include: (*a*) fear of losing his income, (*b*) fear of losing his job, and (*c*) fear of the sanatorium. These fears can be greatly allayed if the policy of the firm is to take back employees when they have recovered. The dread of the sanatorium can usually be overcome by education and wise propaganda.

The difficulty of returning to a different kind of work than that to which they have been accustomed must be faced by some workers. A man must know that his job is a real one and not one created merely to find him employment.

The employer's difficulties must be faced squarely. The returning tuberculous patient has usually a greatly reduced efficiency. He is inferior to the normal worker and this inferiority is likely to persist for a few years. If he attempts to keep pace with fellow workmen he invites early breakdown. Industry quite naturally is not likely to welcome the worker who needs a sheltered life if he is a new entrant, but most employers will take back old employees if the prospect of eventual return to reasonably good health exists. Of course, industry has to deal with many employees disabled by conditions other than tuberculosis. With these "crocks" the returning tuberculous worker has to compete for the suitable job. Many are the employer's problems in adapting the needs of industry to the employee who cannot be subjected to strains such as overtime work, shift and night work, and competition with more vigorous workers.

It is, of course, not possible to pay higher wages to the tuberculous patient than to other workers. In fact he must often be satisfied with a lesser wage. This means that at the very time he needs a higher and better standard of living, he actually has to be content with a much lower one. This situation calls for generous cooperation between the employer and the Care Committee (well organized in England). The tuberculous patient returning to industry should be subsidized until he is able to earn a reasonable wage. Industry cannot be expected to make the subsidy directly.

The danger of infecting other employees must also receive attention. A patient with a positive sputum should not be allowed to return to surroundings where he may infect others. Certainly he should not be permitted to engage in industry involving the handling or packing of food or which requires him to come into contact with the public.

The author urges close liaison between the tuberculosis service and industry. Small firms find it particularly difficult to deal with recovered tuberculous patients but can do much if the facts about tuberculosis are carefully explained to them by the medical officer or doctor. The doctor must not only be conversant with the disease but must also possess an intimate knowledge of the industry and requirements of the workers if he is to talk reasonably and convincingly with the management.

DIFFICULTIES OF THE SUPERINTENDENT OF A MENTAL HOSPITAL

According to Cormac (Tubercle *19:* 107-113, 1937), the records of Parkside Mental Hospital show that in the

past 30 years, 340 deaths occurred in which tuberculosis was a factor. Of these, 80 per cent were sufferers from some form of dementia or a depressed state, or were imbeciles or idiots. Patients suffering from these forms of mental disorder are usually incapable of complaining of feeling ill. They are lethargic and disinclined to take exercise, indifferent to food and of degraded habits. Respiration is shallow and infrequent and circulation is poor.

The diagnosis at an early stage is not easy as the usual physical signs are not apparent. It is necessary, therefore, to record the weight weekly, to take the temperature daily, to examine regularly the feces for the presence of tubercle bacilli and to use the x-ray when indicated.

The pressure of economy weighing on public institutions leads to difficulties of providing segregation, overcrowding, poor dietary, absence of laboratory facilities, inadequate milk supply and an insufficiently trained nursing staff.

These and other difficulties, common to most mental hospitals, have been largely overcome at Parkside Mental Hospital since the appointment of the present medical superintendent in 1914. The ratio of deaths from tuberculosis at Parkside compared with (English) county and borough mental hospitals has been decidedly lowered. In 1935, for example, this ratio for Parkside was 1.5 deaths from tuberculosis per 1000 patients in residence as against 4.6 in all other hospitals.

DIFFICULTIES OF THE GENERAL PRACTITIONER

According to Jackson (Tubercle *19:* 114-117, 1937), to persuade people, especially young people, to submit to observation and treatment during what might be called the "antenatal" stage of the disease in which no certain diagnosis can be made in the face of the doctor's suspicion, is a problem of the general practitioner. The chief reasons for the reluctance of patients to seek medical aid include:

1. The temporary improvement in their general health following treatment which lulls both the patient and the doctor into a false sense of security.
2. Prejudice against being regarded as a subject for notification. Patients fear the social stigma, segregation and threatened invasion of their homes by the authorities.
3. Alarm caused by the prospect of losing income. This is probably the greatest obstacle to continued observation. The vast majority of working-class people simply cannot afford to be ill and hesitate to seek an opinion which will run counter to their own inclinations.

Other difficulties include the isolation of the patient at home, the supervision of contacts, and the question of fitness for work. The doctor's greatest difficulties are the social environment and low standards of living of his patients. — (Reprinted from *Tuberculosis Abstracts:* May, 1938.)

SYPHILIS CONTROL AND TUBERCULOSIS CONTROL HEALTH CONTEST

This year as a part of the City Health Conservation Contest conducted annually by the Chamber of Commerce of the United States in co-operation with the American Public Health Association awards are being made for the most effective community-wide programs for syphilis and tuberculosis control.

The committee of health experts known as the Grading Committee recently announced the following winners in the Syphilis Control Contest:

First award goes to Tacoma, Washington, with awards of merit going to Hartford, Connecticut; Newark, New Jersey; Louisville, Kentucky; and New Haven, Connecticut.

In the Tuberculosis Control Contest, the winner is Detroit, Michigan, with awards of merit going to Newton, Massachusetts; Hartford, Connecticut; and New Haven, Connecticut.

A few of the items considered by the committee were: the comprehensiveness of case-finding and follow-up services in connection with tuberculosis and syphilis; the facilities provided for diagnostic and treatment purposes; the extent of group participation in programs of education and control.

NEW UNIT AT THE MASSACHUSETTS GENERAL HOSPITAL

The contract for the construction of the George Robert White Memorial Building at the Massachusetts General Hospital has recently been awarded. This new unit, which will cost $2,500,000, will be located directly back of the automobile entrance on Fruit Street and will replace several obsolete buildings. It will stand thirteen stories high and is designed to conform architecturally with the other buildings of the hospital. About a year and a half will be required for its completion.

The lower five floors will be occupied by departments that serve all divisions of the hospital, and the upper floors will contain operating rooms and surgical wards. The Bulfinch Building will be remodeled to house all the medical patients and laboratories.

NOTES

The University of Oxford has conferred the degree of doctor of science on Dr. Harvey Cushing, Moseley Professor of Surgery (emeritus), Harvard University, and Sterling Professor of Neurology (emeritus), Yale University.

Dr. S. Burt Wolbach, Shattuck Professor of Pathological Anatomy, Harvard University, was elected a member of the National Academy of Sciences at its recent annual meeting.

Dr. Barbara Ring of the Ring Sanatorium and Hospital in Arlington was recently awarded the Order of Merit by the Chilean Government for "furthering inter-American friendship." The presentation took place at the Chilean Embassy at Washington, and was occasioned by Dr. Ring's play "O'Higgins of Chile."

At the recent annual meeting of the American Association in Mental Deficiency, held in Richmond, Virginia, Dr. Neil A. Dayton, director of the Division of Mental Deficiency and of the Division of Statistics and Research, Massachusetts Department of Mental Diseases, was elected president.

Middlesex University has recently announced the following full-time appointments to the faculty of its School of Medicine: Dr. David L. Davidson, Sc.B. in Chemistry (summa cum laude), Sc.M., and Ph.D. in Biology, Brown University, to the Department of Biochemistry; Dr. Nathan R. Brewer, B.S., D.V.M., Michigan State, Ph.D. in Physiology, University of Chicago, to the Department of Physiology; and Dr. Rainer Zangerl, Ph.D., University of Zurich, to the Department of Histology.

CORRESPONDENCE

A CORRECTION

To the Editor: I request that the *New England Journal of Medicine* correct the statement which appeared in the issue of May 5, to the effect that I stressed the need for more free and part-pay evening clinics at the annual meeting of the Hospital Council of Boston on April 26, 1938, by publishing in full the following statement made at that meeting in regard to this matter:

Evening Clinics. At the request of the Boston Council of Social Agencies, the Executive Committee of the Hospital Council appointed a committee to determine whether evening clinics beyond those now existing were needed in Boston. The committee sent a letter to forty-four health and social agencies and twenty-three hospitals, asking whether, in their opinion, people were deprived of adequate medical care because of lack of free or part-pay evening clinics and whether in their opinion people were paying full evening clinic rates who ought to have the service free or at part cost rather than at full rates. Fifteen replied there was no need for further facilities, four were uncertain and fifteen felt there was need for further evening clinics. The committee, in reviewing the replies, felt that the majority of the group questioned was of the opinion that more evening service was needed, although actual supporting data are rather meager.

The Boston Dispensary reported the Monday and Friday evening clinics were being crowded and it was considering re-opening Wednesday evening. The Massachusetts Memorial Hospitals felt that their clinic was too crowded and were contemplating a second evening. These clinics were opened later.

The Committee to Study the Need for Evening Clinics, therefore, recommended that, if these two additional services were established, consideration of the extension of further evening clinic facilities be deferred until it is determined whether this extension is sufficient. The committee also recommended that if this extension of the existing evening facilities proves inadequate for the demand of free and part-pay evening clinic service, the advice of the Massachusetts Medical Society be sought before further evening clinics are established under the auspices of the Community Federation of Boston.

Joseph B. Howland, M.D., *President,*
Hospital Council of Boston.

80 Federal Street,
Boston, Massachusetts.

STILL AMONG THE LIVING

To the Editor: We wish to make correction of a gross error in our *Year Book,* in commemoration of the Diamond Jubilee of the Carney Hospital, in which the name of Dr. Dana W. Drury is erroneously listed among "A Quarter of a Century's Toll."

Sister Marie, *Superintendent,*
Carney Hospital Corporation.

Carney Hospital,
Boston, Massachusetts.

NOTICES

MASSACHUSETTS SOCIETY OF EXAMINING PHYSICIANS

The annual meeting and election of officers of the Massachusetts Society of Examining Physicians will be held at the Copley-Plaza Hotel, Wednesday, May 25, at 6:30 p. m. Dinner will be $2.50 per plate.

PROGRAM

Trauma of the Knee Joint. Dr. Edwin F. Cave.
Expert Medical Testimony:
As Viewed from the Bench
Hon. Abraham E. Pinanski, Justice Massachusetts Superior Court.
Hon. Wilford D. Gray, Justice Massachusetts Superior Court.
Hon. James C. Donnelley, Justice Massachusetts Superior Court.
Hon. George C. Sweeney, Justice U. S. District Court.
As Viewed from the Bar
James M. Hoy, Esq., Suffolk County.
James W. Sullivan, Esq., Essex County.

Francis R. Mahony, M.D., *President,*
William Pearce Coues, M.D., *Secretary.*

CAMBRIDGE HOSPITAL

The regular clinicopathological meeting of the staff of the Cambridge Hospital will be held at the hospital, 330 Mt. Auburn Street, Cambridge, on Tuesday, May 24.

All members of the medical profession are cordially invited to attend.

Joseph M. Wadden, M.D., *Secretary.*

SOCIETY MEETINGS AND CONFERENCES

Calendar of Boston District for the Week Beginning Monday, May 23

Tuesday, May 24
*9-10 a. m. Boston Dispensary. Clinicopathological conference. Dr. Richard C. Wadsworth and Dr. Clark W. Heath.
*10 a. m. - 12:30 p. m. Tumor clinic. Boston Dispensary.
10:30 a. m. Massachusetts General Hospital. Cardiac rounds.

Wednesday, May 25
8 a. m. Massachusetts General Hospital. Grand rounds, Orthopedic Department.
*9-10 a. m. Boston Dispensary. Hospital case presentation. Dr. S. J. Thannhauser.
*12 m. Clinicopathological conference. Children's Hospital amphitheater.
6:30 p. m. Massachusetts Society of Examining Physicians. Copley-Plaza Hotel.

Thursday, May 26
9 a. m. Massachusetts General Hospital. Surgical grand rounds.
*9-10 a. m. Boston Dispensary. X-ray demonstration. Dr. Alice Ettinger.
9:15 a. m. Massachusetts General Hospital. Neurological conference, Ether Dome.
12 m. Massachusetts General Hospital. Clinicopathological conference.

Friday, May 27
*9-10 a. m. Boston Dispensary. Pulmonary Carcinoma. Dr. Donald S. King.
10 a. m. Massachusetts General Hospital. Fracture rounds.
*10 a. m. - 12:30 p. m. Tumor clinic. Boston Dispensary.
12 m. Clinical meeting of the Children's Medical Service, Massachusetts General Hospital, Ether Dome.

SATURDAY, MAY 28

*9-10 a. m. Boston Dispensary. Lipoid Diseases. Dr. Thannhauser.

*10 a. m. - 12 m. Staff rounds at the Peter Bent Brigham Hospital. Conducted by Dr. Henry A. Christian.

*Open to the medical profession.

MAY 19 — New England Pathological Society. Page 826, issue of May 12.

MAY 19 — Boston Society of Psychiatry and Neurology. Page 826, issue of May 12.

MAY 21 — Boston City Hospital. Symposium on Traumatic Surgery. Page 825, issue of May 12.

MAY 24 — Cambridge Hospital. Page 865.

MAY 25 — Massachusetts Society of Examining Physicians. Page 865.

MAY 31 — Tufts Medical Alumni Luncheon. Page 858.

MAY 31 — Harvard Medical Alumni Association. Page 858.

MAY 31 — The New England Regional Committee on Fractures of the American College of Surgeons. Page 858.

MAY 31, JUNE 1 and 2 — Annual meeting of the Massachusetts Medical Society. Hotel Bradford, Boston.

JUNE 1 — Massachusetts Medico-Legal Society. Page 858.

JUNE 1 — New England Alumni, Baltimore Medical College, College of Physicians and Surgeons, University of Maryland Medical School. Page 858.

JUNE 1 and 2 — National Society for the Advancement of Gastroenterology. Page 746, issue of April 28.

JUNE 6, 7, 8, and 9 — American Association of Industrial Physicians. Page 499, issue of March 17.

JUNE 10 and 11 — American Heart Association. Page 707, issue of April 21.

JUNE 13-17 — American Medical Association. San Francisco.

JUNE 13, OCTOBER 8 and NOVEMBER 15 — American Board of Ophthalmology. Page 282, issue of February 10.

JUNE 23 — Pentucket Association of Physicians. Hotel Bartlett, 95 Main Street, Haverhill, 8:30 p. m.

SEPTEMBER 12-14 — American Association for the Study of Goiter. Page 545, issue of March 24.

OCTOBER 17-21 — Clinical Congress of the American College of Surgeons, New York City.

OCTOBER 24-26 — Academy of Physical Medicine, Scientific Session. Washington, D. C.

DISTRICT MEDICAL SOCIETIES

HAMPDEN

Meeting will be held on the fourth Tuesday in July.

PLYMOUTH

Meeting will be held at 11 a. m. on July 21.

BOOK REVIEWS

Apoplexies Viscérales Séreuses et Hémorragiques (Infarctus Visceraux). Raymond Grégoire et Roger Couvelaire. 178 pp. Paris: Masson et Cie, 1937. 50 Fr. fr.

This is a well-organized book in which the authors present experimental and clinical data to support their concept that so-called visceral apoplexy results from anaphylactic shock. They distinguish apoplexy from infarction, in that infarction involves a gross lesion of the vessels, whereas apoplexy does not. Infarction causes the death of a part; whereas apoplexy does not necessarily do so.

The authors emphasize that such apparently diverse conditions as hemorrhagic pancreatitis, so-called intestinal infarction without a gross vascular lesion, so-called thrombosis of the uterus and tubes, thrombosis of the testicles, pulmonary apoplexy and cerebral hemorrhage have certain characteristics common to all. They occur suddenly and the most striking general symptom is the precipitate fall in arterial tension. Certain characteristic changes occur in the various organs involved, and the authors believe that the individual variations depend upon the anatomy and function of the particular organ which is attacked.

They believe that they have been able to reproduce the general and local characteristics of the above-mentioned conditions in experimental animals. Briefly, their experimental work has consisted of producing anaphylactic shock in such animals as the dog, rabbit and guinea pig. By sensitizing an organ to a foreign protein and later producing a generalized shock, they were able to reproduce the picture of hemorrhagic pancreatitis and the so-called infarction or thrombosis of either the intestine, uterus, testicles or lung. They discuss the mechanism of anaphylactic and anaphylactoid reactions and emphasize that it is a disturbance of the endothelium of the vessels, or more accurately, the result of a stimulation of the vegetative nervous system which runs in the endothelium. There is a vasodilation of the capillaries and venules severe enough to arrest or stop the flow of blood.

Surgery cannot be of much use in treating such a condition, and therapy should be directed toward limiting the general shock manifestations and combating the vasodilation existing in the involved organ. A general anesthetic is useful in decreasing a generalized disturbance of the vegetative nervous system, and the benefit which surgery seems to give to some of these cases may come from the anesthetic. Drugs such as adrenalin may be used in an attempt to overcome the local vasodilation.

The subject matter in this book is well arranged. The authors give their experimental results in considerable detail. Anyone interested in this subject should read the book.

The Laboratory Diagnosis of Syphilis: The theory, technic, and clinical interpretation of the Wassermann and flocculation tests with serum and spinal fluid. Harry Eagle. 440 pp. St. Louis: The C. V. Mosby Company, 1937. $5.00.

The author takes up in great detail in the first eight chapters the Wassermann test in its various steps from a laboratory technician's point of view. In the next four chapters he deals with the various flocculation tests from the same point of view. There are two chapters on procedures with spinal fluids and one on tests other than Wassermann or flocculation tests.

For the clinician, the successive chapters discuss the clinical evaluation and the statistical comparison of these various tests.

This book should be of great value both to the laboratory worker and the clinician and should be in a library and wherever tests are being made or syphilis is being treated. The bibliography is exhaustive.

Theoretical Principles of Roentgen Therapy. Edited by Ernst A. Pohle. 271 pp. Philadelphia: Lea & Febiger, 1938. $4.50.

As the name implies, this volume is devoted chiefly to the physics of roentgen-rays. In addition, there are some remarks on the biologic effects of radiation.

The first chapter is contributed by K. W. Stenstrom, Ph.D.; it deals briefly with nuclear physics and the production, characteristics and measurement of roentgen rays. The second is by Dr. R. R. Newell, and is devoted to a description of various types of x-ray apparatus. The third, by L. S. Taylor, Ph.D., and Dr. E. A. Pohle, deals with practical dosimetry. Dr. F. C. Wood has contributed the fourth chapter, which concerns radiobiology and radiopathology. Dr. L. S. Taylor concludes the volume with a consideration of protection from roentgen-rays.

The book is interestingly written and is designed for the radiotherapist who desires a thorough understanding of the theoretical principles underlying roentgen ray therapy. The need for such a work has long been felt and has been admirably met.